THE OIL WEEKLY

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The Oil Man's Calendar

MAY 19–21	Natural Gasoline Association of America, Tulsa, Oklahoma.
23–27	National Association of Purchasing Agents (Oil Company Buyers Group), Pittsburgh, Pa.
26–28	National Oil Well Superintendents Association, Fort Worth, Texas.
JUNE 1–3	American Petroleum Institute, Mid-Year Meeting, Colorado Springs, Colorado.
5	San Joaquin Oil Men's Barbecue for California Oil Men, Bakersfield.
10–12	Pennsylvania Grade Crude Oil Association, Sailing from Buffalo, New York.
11	Interstate Oil Compact Commission, Santa Fe, New Mexico.
14–19	Second World Congress of Petroleum Paris, France.
20–26	Golden Celebration of Oil and Gas, Findlay, Ohio.
24–26	National Oil Scouts Association, Dallas, Texas.
JULY	Seventeenth International Geological Congress, Moscow, U.S.S.R.
SEPT. 15–17	National Petroleum Association, Hotel Traymore, Atlantic City, New Jersey.
SEPT. 27 OCT. 1	American Gas Association, Cleveland, Ohio.
OCT. 11–16	Oil World Exposition, Houston, Texas.
14–16	Independent Petroleum Association of America, Houston, Texas.
29–30	Mid-Continent Oil and Gas Association, Texas Division, Dallas, Texas.
NOV. 9–12	American Petroleum Institute, (Annual), Chicago, Illinois.

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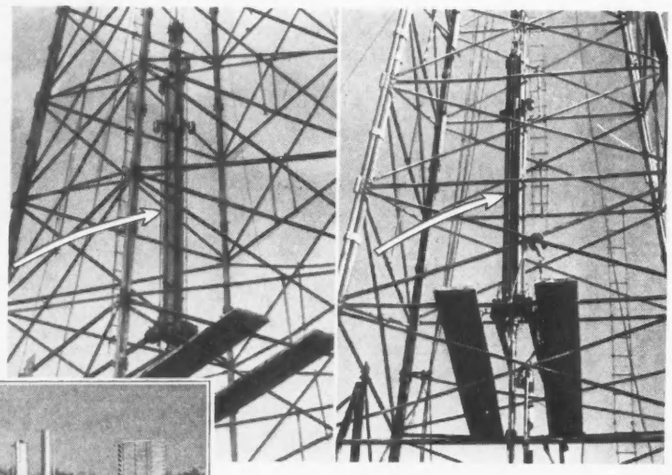
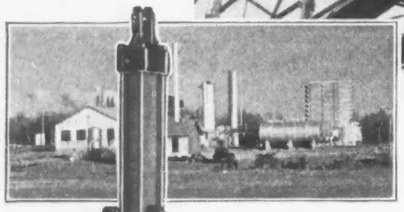
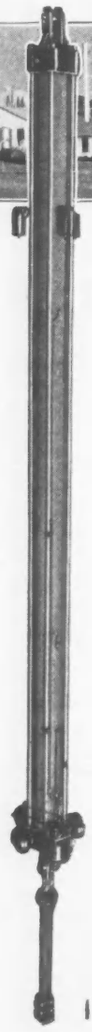
Two Sullivan Pumpheads, installed on 6500-ft. wells, and operated from the residue line of the gasoline plant, handle a difficult deep pumping problem, for a low first cost.







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LOOKING AHEAD

WITH THE EDITOR

Sucker Rod Abuse Expensive . . .
Pipe Line Electrolysis Protection.
High Drilling Temperature Overcome . . .

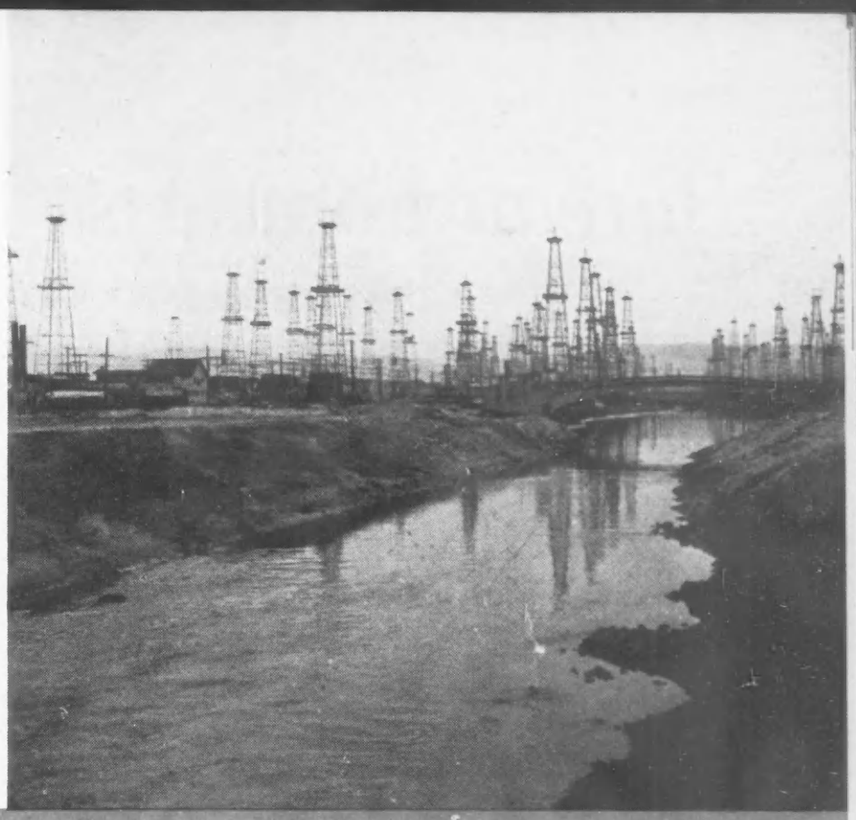
ABUSE is taking the life out of a large percentage of sucker rod strings. They are subjected to all types of treatment, and because of their small diameter and flexible nature are susceptible to severe shock and strain. Size is against sucker rods, but with correct treatment, which is comparatively simple to follow, they will meet all reasonable operating requirements. Trained crews, plus proper tools, well studies and strict rules for all handling can definitely provide more efficient service than is being obtained in many instances. How sucker rod life may be prolonged by the elimination of abuses is the subject of the second of The OIL WEEKLY's "Equipment Care Series", and will appear next week.

SERIOUS corrosion resulting merely from the presence of acid in the soil water is rare, but soil water need be only a good electrolyte to set up a condition highly corrosive for pipe lines. Methods of cathodic protection, of distributed anodes, use of tamped coke, of zinc anodes to get the galvanic-couple type of protection for lines are discussed next week in A. L. Black's "Pipe Corrosion, Electrolysis and Cathodic Protection."

HIGH temperatures encountered in drilling a well in Anderson County, Texas, so heated the rotary mud that destructive effects were had on several machinery parts. However, the drilling contractor has successfully overcome the problem through a mud cooling system, which economically reduces and controls the mud temperature. The installation will be fully described and illustrated in our next issue, and will be found of interest and value.

THIS WEEK

» VENICE CANAL is dotted with oil derricks today. However, it is not the famous canal-street city of Italy, but the old Venice canal of California. This scene is looking north across the Playa del Rey field, near Los Angeles.



AN important transformation of the economic situation apparently is occurring. In the oil industry, consumption in recent months has been flattening out, although still running ahead of last year's levels. This is indicated by the running of crude to storage. It is true production has been higher, but expectations were that increased consumption would absorb the greater recovery. At the same time, talk of a crude price raise, which was hopeful very recently, has receded. **Page 16.**

THE talk of higher crude prices that prevailed several weeks ago has died down to a mere whispering, as excessive production has cast doubt upon the future market trends. Latest reports on crude stocks indicated 2,500,000 barrels more went into storage the week ended May 1, on top of an increase almost that large in the preceding week. With production consistently above market requirements, crude stocks have increased every week for 14 weeks. Within that period the storage has expanded 18,000,000 barrels. The trend of the stocks indicates the urgent need for strict production allowables. **Page 75.**

A HALF million dollars for enforcement of the Connally contraband oil act, if it is passed, will be asked of Congress it was disclosed last week. Failure of the legislators to act earlier on the bill, makes it necessary that special legislation for financing its administration be obtained. **Page 13.**

CONTINUANCE of the present oil conservation program, as far as the federal government was concerned, was menaced last week by inclusion of a surprise provision in the Interior Department appropriation bill. It would require the Bureau of Mines to discontinue monthly forecasts of demand. This move came as a surprise. However, if it is passed by the House, it is felt it will be rejected by the Senate. But, the provision may cause much trouble before the two legislative bodies agree on the bill. **Page 12.**

CURRENT SITUATION

(Latest Available Weekly Data)

Outlook.—Marred by continued excessive crude production and additions to storage.

Crude Market.—Adversely affected by over-production.

Refined Oil Markets. — Prices mostly the same as week ago.

Crude Production.—Increases again, reaching new peak.

Crude Runs to Stills.—Down 75,000 barrels daily from all-time peak of previous week.

Crude Stocks.—Up 2,512,000 barrels in week ended May 1; gain of 18,038,000 in 14 weeks.

Gasoline Stocks.—Up 62,000 barrels; down previous week.

Gas and Fuel Oil Stocks.—Up 583,000 barrels.

Drilling.—Completions last week down; total wells 550.

See* MARKET SECTION *for Details

THE House Interstate and Foreign Commerce Committee has given its approval to the continuation of the Connally Contraband Oil Act for another two years. No changes, with the exception of that changing the bill from a permanent law to a two year one, were made by the House, and it is expected to pass the lower department of Congress easily. **Page 14.**

THROUGH reasonable care of wire rope, those engaged in drilling operations in the oil industry can procure much more efficient service from this product, and, at the same time, effect a large saving in costs. It is necessary to know the common abuses to which wire lines are subjected during installation and operation, and to know the proper maintenance steps. These conditions are set forth in the first of our "Equipment Care Series" articles. **Page 19.**

THE world's deepest producing well was completed last week, when Humble Oil & Refining Company's Elender 1, in the old Houma gas field of Terrebonne Parish, Southern Louisiana, commenced flowing 40 barrels of 39 gravity oil from 11,620-30 feet. **Page 42.**

THE INDUSTRY is being prevented from attaining a stable and intelligent program of development by laws existing in most of the oil producing states. These statutes, being fundamentally based on the antiquated "law of capture," are contrary to conservation and economic stability. Legislation is needed that will permit conservation of this natural resource, proper allocation of petroleum, and recovery of the greatest amount at a minimum expense. **Page 51.**

Bureau Forecasts

WOULD BE ELIMINATED BY A SURPRISE PROVISION

Washington, D. C.—Continuance of the present oil conservation program was menaced last week by inclusion in the Interior department appropriation bill of a surprise provision requiring the United States Bureau of Mines to discontinue its monthly forecasts of demand after the close of the present fiscal year, June 30.

Independent Marketer Victory

The provision was a tactical victory of the independent marketers, at whose behest it was included by the house appropriations committee.

Discovery of the "joker" in the bill came as a surprise when it was reported May 11. No mention whatever was made of the provision in the report submitted by the committee, nor was there any extensive discussion of the matter of forecasts when representatives of the Bureau of Mines appeared before the committee during its hearings.

White Explains Protest

It was explained by Alfred G. White, chief economist of the petroleum economics division, that "the bulk of the protests that have been received really come from the Independent Marketers Association and not from oil companies, and their general protest is in the nature of a statement that the forecasts tend to produce less abundance of oil and freeze up the source of material for the independent marketer.

"The bulk of their real protests," he said, "goes back to any regulation of the oil industry which, primarily, is under state laws and counties at the present time. Our point of view in our forecasts is that we are not concerned with the regulation. We are furnishing informational data which the states need to determine their programs, and they follow our estimates on forecasts of demand as they see fit. They may follow them or they may raise them. In other words, the real factor lies in the hands of the state control agency.

"The primary purpose is to give the picture one month in advance of what the coming demand for oil is going to be; how much crude, under current refinery conditions, is going to be required from the different states to meet the market demands.

Producers Favor Forecasts

"I do not believe the small independent producers as a group do object," he said in response to a question by Representative Rich (Republican) of Pennsylvania as to why that group should object to the forecasts. "It is the marketers who like the most abundant oil supply at the cheapest price, so that it is available for speculation by any marketer. The producers seem to enter into the state programs and cooperate."

Hadlick Requests Elimination

Request for the elimination of the forecasts was laid before the committee by Paul E. Hadlick, secretary of the National Oil Marketers' Association, who had attacked them during senate and house hearings on the extension of the Connally Contraband Oil Act as part of a set-up giving the integrated companies a monopolistic hold on the industry.

"Our reason for asking that the special appropriation for these forecasts be eliminated, and that in addition a prohibition be placed in the appropriations bill, now under consideration, against future efforts of the Department of the Interior along this line is simply that the department undertook the work long before it had statutory authority and for all we know, it might assume that responsibility again," he declared. "We believe that once and for all the issuance of these forecasts should be stopped."

Wants Cheaper Gasoline

If this particular government activity were discontinued, Hadlick asserted in answer to a question by Representative Leavy of Washington, the consumer of gasoline would be able to purchase it at a less figure than he now pays.

"In a nutshell," he said, "our objection to these forecasts is that by reducing the amount going on the market below demand you raise the price."

"We buy in the competitive markets," he explained. "That is, we want to buy in the competitive markets. We sell in a competitive market entirely, against the competition of the big concerns like The Texas Company, who are willing to sell at a loss. They have bottled up

To Invite World Petroleum Congress to U. S.

W. B. Way, general manager of the International Petroleum Exposition, shows Fidelis Coe, Osage Indian, the invitation which is being presented to the World Petroleum Congress at Paris in June inviting the group to hold its 1940 meeting in Tulsa in conjunction with the Tulsa Oil Show. R. S. Ellison, president of Stanolind Pipe Line Company, and a member of the International Petroleum Exposition board of directors, is holding the invitation.

Coe said that his people would be happy to welcome the delegates from many nations in behalf of the original Americans if they accept the invitation to hold the Congress in Tulsa. The congress is held every three years. Preparations are nearing completion for the tour of oil men who will attend the Congress from all sections of the United States, and present the invitation in behalf of the United States and the International Petroleum Exposition.

the supply of refined products practically below demand. They have been indicted; but indictments are a slow process. They will go in and purchase any surplus. And why do they do that? It is because they have a blueprint before them as to how much to produce. And those guesses—call them forecasts, if you will—have always been below demand, with the exception, perhaps, of the last two or three months.

"We would reestablish the competitive situation in the production and refining and selling of oil to the wholesalers and consumers. It might involve an adjustment lowering the prices of gasoline to the consumer. That would be the natural outcome. But, I do not fear any of this runaway that we have had, because the states have fairly good control over the oil situation in their respective areas. The states can control waste, over and above that there should be healthy competition between the oil-producing states for the oil business of the nation."

Senate Expected to Reject

Confidently expressing the belief that even if the house accepted the provision barring the forecasts it would be rejected by the senate, oil industry representatives in Washington pointed out that the Bureau of Mines reports constitute the only unbiased picture of the situation available and declared their discontinuance would be a blow to the industry.

While the Connally Act, the Interstate Compact and the state control laws could still continue to function, it was said, the federal government would be handicapped in its efforts to follow changes in the situation, and the way might possibly be paved for a drive for suspension of the contraband oil act on the ground that demand exceeded supply, as claimed by the independent marketers.

Secretary of the Interior Harold L. Ickes also criticized the proposed ban, declaring that the forecasts serve a highly useful purpose in connection with administration of the Connally act.

To Ask for Money

CONNALLY ACT ENFORCEMENT INVOLVES APPROPRIATION

Washington, D. C.—An appropriation of $500,000 for enforcement of the law will be asked of Congress if the Connally contraband oil act is continued, with the probability that a second federal tender board will be established for the Corpus Christi, Texas, area, it was disclosed this week with introduction in the House of Representatives of the annual supply bill for the Interior Department.

Special Legislation Necessary

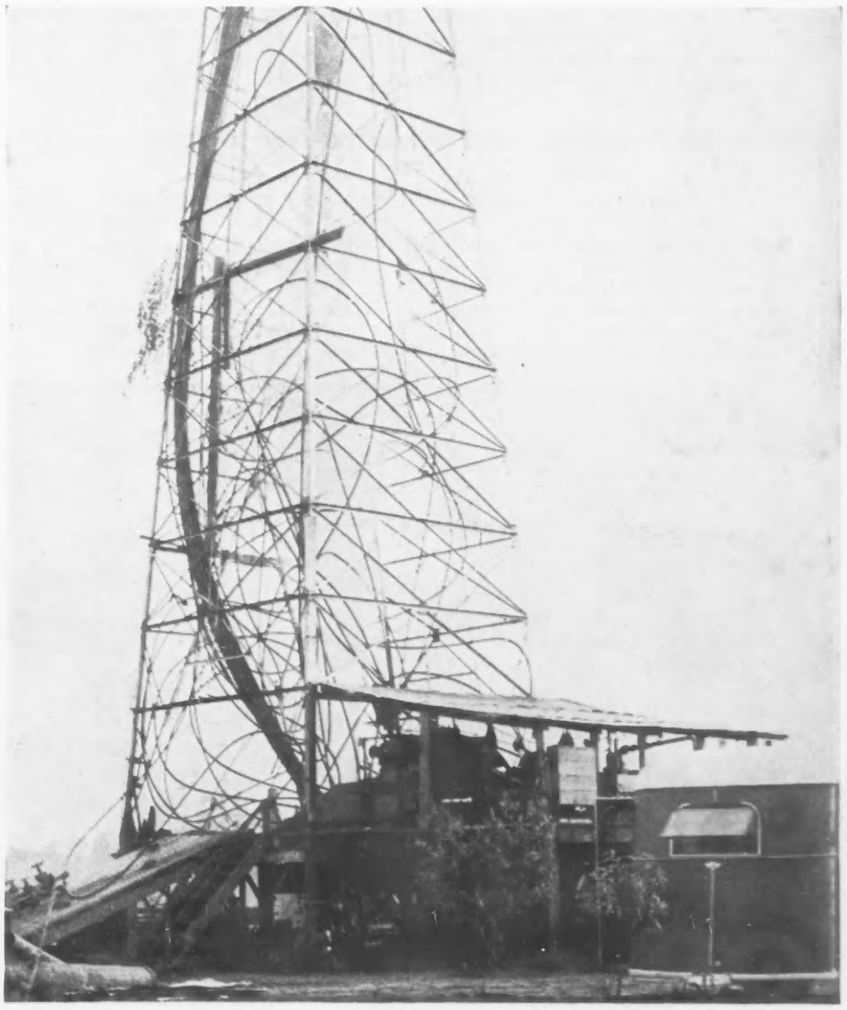
Failure of Congress to act earlier on the extension legislation, which has been passed by the Senate and is now pending in the House, will make necessary special legislation for financing its administration, since, with the act as now written due to expire on June 15, no provision was made in the appropriation bill for continuance of the petroleum administration, for which $300,000 was provided for the current fiscal year.

Handled 222,034,000 Barrels

The situation was discussed briefly with members of the House Appropriations Committee by Secretary of the Interior Harold L. Ickes during hearings on the department's money bill.

The secretary explained that the states of Kansas, Louisiana, New Mexico, Oklahoma and Texas, producing 73 percent of the national oil output, have adopted conservation policies which are given the support of the federal government through the Connally Act.

"During the fiscal year ended June 30, 1936," he said, "the department issued 5968 certificates of clearance involving 222,034,000 barrels of petroleum at an over-all cost of about one-tenth of a cent a barrel. The administration of the law is so essentially a



Tubing Blows Out

Tubing was being removed from Placid Oil Company's Elliott 1, Houston County, Texas, wildcat on May 5 when the well blew out. Approximately 1500 feet of tubing was in the hole at the time, and was hurled into the derrick, where it was twisted into many fantastic shapes as shown in the photograph. Since the surface connections remained intact, no trouble was experienced in controlling the well after the wreckage was cleared away. The test is located on what is known as the Procella structure, and is believed to mark the opening of a new gas, and possible oil area from the Woodbine sand in the south portion of the East Texas basin.

Photo courtesy E. A. Wendlant, Humble Oil & Refining Company, Tyler, Texas.

field activity that, of the 78 persons employed, 60 are in the field and only 18 in Washington.

"The act has been upheld uniformly in the federal courts and no issue thereunder has been presented to the Supreme Court of the United States. The prosecution of cases rests with the Department of Justice, which prosecutes civil and criminal proceedings under the act."

HOUSE APPROVES

Continuation of Connally Act for two more years

Washington, D. C.—Continuation of the Connally Contraband Oil Act until June 30, 1939, was given the approval of the House Interstate and Foreign Commerce Committee May 13, and a favorable report was ordered on the Dies bill, which originally was identical with that introduced by Senator Connally and passed by the Senate some weeks ago. The Connally bill, however, provided that the act should be made permanent law.

With the exception of the amendment limiting the act to slightly more than two years, the commitee made no changes in the measure, rejecting proposals made during the hearings for a 30-hour week and a $5 per six-hour day minimum wage, and for the disintegration of the integrated companies.

A written report is expected to be submitted to the House of Representatives early next week. No difficulty is anticipated in securing passage of the bill by the House.

Gas Meeting

BETTER THINGS IN STORE FOR INDUSTRY AGA MEN HEAR

Kansas City, Mo.—There are more and better things in store for the gas industry of this country. Although the industry is among the pioneer enterprises of this country, it is being reborn, if the words of speakers at the annual meeting of the Natural Gas Department of the American Gas Association in Kansas City, May 9 to 14, are any criterion.

W. T. Rasch, New York, president of the Association of Gas Appliance and Equipment Manufacturers, said sales of gas burning equipment were showing a marked increase over the corresponding period in 1936.

"There are more than 16½ million gas consumers in the country, an all-time high," Rasch said. "Shipments of gas ranges during the first quarter of this year increased 29.2 percent over the initial quarter in 1936; gas fired water heaters of the automatic type, 68.6 percent, and sales of central heating gas appliances were 39.5 percent ahead."

A picture of the "new Southwest" was presented by L. B. Denning, Dallas, president of Lone Star Gas Corporation, and last year's president of the American Gas Association. Denning sees a probable shifting of the nation's biggest seaboard activity from the Northeast to the Southwest.

"No region is richer in natural resources and the bulk of the gas production is in the Southwest," Denning said. "This cheap and efficient fuel is available for processing agricultural and other products."

Gas men, Denning said, see a parallel to a new industrial life built around the natural gas region and the early day location of industry in the coal region of the Great Lakes. The Texas seaboard, he said, offers an export route as did the Atlantic seaboard in the earlier days.

In his address, Herman Russell, Rochester, N. Y., president of American Gas Association, said "that as an industry we are in our most successful and widely extended era. However, we realize that the advantages of natural gas, particularly as a domestic fuel, can be more intensively developed."

Forty-Five Year Supply

Natural gas reserves of the United States guarantee consumption at the present record pace for at least 45 years; and that can be tripled by conservation of gas, in the opinion of Dr. John W. Finch, Washington, director of the United States Bureau of Mines, another speaker at the convention.

Dr. Finch said his bureau was assembling statistics to present to the states to show gas is being wasted.

"The states are putting in proration programs to conserve both gas and petroleum," Dr. Finch said. "By retaining the gas through repiping it into the wells, both the oil and gas are conserved for future generations. The interstate compact committee is pushing this work."

With the use of interstate pipe lines, Dr. Finch said, the natural gas industry has found a broadening market.

"In 1926 the interstate shipments of natural gas were 210 billion cubic feet and in 1936 they had increased to 426 billion cubic feet," Dr. Finch said. "The consumption of interstate gas showed an increase in every district in the period with the exception of the Appalachian district, which declined 30 billion cubic feet.

"The north central district increased 149 billion cubic feet, the southeast states increased 38 billion, the south central 95, the Rocky Mountain states 39 and California 93 billion.

"These percentages undoubtedly will increase as the interstate lines continue to develop their markets."

Vast shifting of industrial centers may be determined by the rapid increase in gas consumptions, Dr. Finch said. With the Southwest as the great producing center of the nation's gas supply, much significance was attached to that part of Dr. Finch's conclusions.

"The rapid displacement of one fuel

"Mammies" Invite Gas Men to Crescent City

New Orleans, seeking the 1938 gas convention, sent two colored "mammies" to Kansas City to pass out praline, a southern confection. Jay Barnes, left, Public Service, Inc., of New Orleans; Captain A. E. Higgins, center, Natural Gas Association, Dallas; and J. Walker Ross, right, of the American Gas Association committee of New Orleans, are shown getting their share.

by another has far-reaching and complicated results and may shift the centers of fuel production and determine the location of new industrial development," Dr. Finch explained.

W. Alton Jones, New York, first vice president and executive committee chairman of Cities Service Company, attributed much credit for low utilities rates in this country to the work of public service commissions in driving out wildcat promoters and establishing operating companies on a sound basis.

"The utilities industry in general now is in the hands of sound operating companies and rates are determined by the commissions in the best interest of the consumer."

The need for proper state regulation of both oil and gas production was stressed by Jones.

"It is necessary that uniform state laws be enacted for the best interest of future generations to preserve our natural resources for their use," Mr. Jones said. "The companies are behind the states in these programs, but believe that there should be uniform regulation."

Reports of research work in repressure and other phases of conservations were made by the following:

H. C. Cooper, Pittsburgh, report on main technical and research committee.

T. R. Weymouth, New York, report on gas measurement subcommittee.

H. D. Hancock, New York, report on pipe line subcommittee.

N. C. McGowan, Shreveport, report of gas well deliveries committee.

OPPOSE NYE BILL

Passage would deprive Louisiana of millions

Baton Rouge, La.—The state of Louisiana, through Attorney General Gaston L. Porterie and Register of the State Land Office Lucille May Grace, has formally entered the fight against the bill of Senator Nye providing for federal ownership of coastal lands.

In a letter to the Louisiana congressional delegation urging defeat of the measure, they said the bill "would deprive the state of Louisiana of millions of dollars of potential revenue." The Nye bill would make "all submerged lands lying under the high seas off the coasts of continental United States between the low-water mark and the three-mile limit" a part of the public domain.

Louisiana has granted leases from the coast line to the three-mile limit in the Gulf of Mexico, it was pointed out, and some of the lessees are "preparing to drill in the Gulf with good indications that oil will be produced.

Questions Constitutionality

"Assuming that the ownership of the state of Louisiana extends to the three-mile limit," the letter continues, "we are of the opinion that a law such as is proposed by Senator Nye would be unconstitutional. However, we feel that it is our duty as public officials of the state of Louisiana to call your attention to the possible effect of such legislation and to urge that you make every effort to prevent the passage of the Nye bill or any similar legislation which, if enacted and upheld by the courts, would deprive the state of Louisiana of millions of dollars of potential revenue which is needed so much at this time.

RATIFY COMPACT

2-year extension o.k.'d by 6-state commission

New Orleans.—The interstate oil compact commission, of which six states are members, met in New Orleans May 10. Two important actions were taken, one of which was ratification of the compact for two more years, and the other was the inviting of Louisiana to join.

The interstate compact for the conservation of oil was drafted in Dallas in February, 1935, and is to expire in September of this year. Representatives of the six member states (Texas, Oklahoma, Illinois, Colorado, Kansas and New Mexico) voted to continue it for another two years without change. This plan will be sent to the governors of the six states for their approval. After that action is taken, the compact will be forwarded to President Roosevelt with a request he submit it to Congress for re-enactment.

Louisiana was invited to join the compacting states, but declined to enter pending further study of its effect upon the state's oil production and conservation laws.

R. W. BYRAM TO COVER

WORLD PETROLEUM CONGRESS

FOR THE OIL WEEKLY

TO ASSURE OUR READERS the best possible coverage of transactions at the Second World Petroleum Congress, to be held in Paris, France, June 14-19, inclusive, THE OIL WEEKLY is sending one of its regular editorial staff men to cover the meeting. The man selected to perform this duty is R. W. Byram, who has written practically all the news stories and articles that have appeared in this magazine on Texas proration orders and legal matters pertaining to oil production control.

Byram first became familiar with the Railroad Commission and the oil industry in 1921, and has followed both very closely since that time. He is a graduate of the University of Texas, where he obtained a degree in geology

Since the first proration hearing in 1930, Byram has attended every state-wide proration hearing, and almost every special field hearing held in Texas, including many of those held outside of Austin. It is a record approached only by Railroad Commissioner Earnest O. Thompson, and the latter's record dates only from the time he became a member of the railroad commission in 1932. It so happens that Byram was hired by THE OIL WEEKLY at the first proration hearing ever held in Texas. Since that time he has been on the job consistently.

He has testified on oil drainage problems in more than 300 cases, both before the railroad commission and in the courts. During this time, he has built up a reputation as an expert on oil regulation matters in Texas. It is not uncommon for oil company executives, lawyers and engineers to make a habit of asking Byram his opinion or for his records of such matters.

Trade Forecasts of Future

By L. J. LOGAN

Along with other industries, oil business finds evidence of flattening of hitherto rising demand.

Lately declining prices of commodities and securities perhaps foreshadow impending business lull.

IN recent weeks there has been much interesting, if not altogether pleasant, changing of the panorama. An important transformation of the economic situation apparently is occurring, and there has come to be a rather general recognition of the altered outlook, as evidenced by the March-April-May slump of the prices of commodities and securities.

Caution has replaced previous unguarded optimism, and the important question now considered is whether recent large business activity can be maintained; not how much more expansion will occur.

In various industries and branches of commerce there has been some slowing down of the forward surge and currently there is much talk of a possible trade lull this summer; although some expect that such a period of quiet would be followed by a resumption of rising trends in the fall and well into next year with the stock market action perhaps foreshadowing the actual developments.

Oil Industry's Situation

The oil industry's experience has not been widely different from this pattern of general business, and the outlook for oil similarly is tied in closely with the general outlook.

Although running ahead of last year's level, petroleum consumption in recent months apparently has been flattening out somewhat, instead of continuing on the previous sharply rising trend. This is indicated by the fact increased quantities of crude oil have been going into storage, in the face of somewhat stricter control of production; whereas it was expected that the stricter allowables would bring a partial if not complete elimination of the excessive crude production that has prevailed since early this year. The continued lack of a better balance between production and demand apparently has been due in part to the failure of demand to fulfill the optimistic expectations. (The Oil Weekly, May 10 1937, page 14).

Crude Raise Talk Wanes

Although there was much discussion some weeks ago of the possibility of an early increase in crude oil prices, with attending advances of refined oil prices, the hopes along this line lately have been receding, in view of the continued excess of crude production above demand.

Much of the recent exceptional strength of the oil company securities has been based, apparently, on this possibility of price increases. But with the advances becoming increasingly doubtful, the exceptional popularity of the oil shares similarly has waned.

Views on Future Trends

While there is a rather wide acceptance of the idea that this summer or fall will bring dullness of business, there is similar general agreement that such a recession would be only temporary, and that it would be followed by a resumption of vigorous industrial and commercial activity. How long the major upward trend will continue is coming to be a common subject of speculation, and there is substantial opinion that a major recession lies only a few years ahead, although some respected forecasts are that business will continue favorable for a good many years, because of present momentum and yet unsatisfied needs that accumulated during the recent lean years.

Minor Recession Predicted

Many of the government economists at Washington are among those taking the view that a recession in industrial activity is highly probable before the end of this year, but that the trade lull will prove only temporary, with still further improvement in business in prospect following the dull period.

For the immediate future there are but few economists who expect a further increase in production levels or even a general maintenance of the recent high levels.

Summer Lull Forecast

The temporary recession that is looked for is expected to occur in the summer or autumn, and it is estimated variously that the dull period will last from three to nine months.

Industrial production in the first quarter of this year was the highest on record with exception of that in the similar period of 1929, and since it occurred partially because of forward buying, in fear of rising prices and labor strikes, some letdown is considered almost inevitable.

More Prosperity Seen

Nevertheless, it is pointed out that consuming power still is comparatively large and again may catch up with production after the temporary business lull and make possible new all-time records of production.

Contributing much toward a restoration of vigorous business, following the possible period of dullness, it is believed, will be extensive residential and industrial building; since comparatively little has been accomplished so far in wiping out the shortages and obsolescence that accumulated during the depression.

Agree on Outlook

With the opinion that a period of prosperity still lies ahead, despite a possible impending tempo-

Give Indication for Oil

Associate Editor

With possible exception of dull period soon, next two years are expected to bring general prosperity.

Forecast of important business recession in 1939 attracts wide attention but not general agreement.

rary lull, there is rather general agreement.

The National Association of Purchasing Agents in its bulletin recently stated the "consensus" is that the period of prosperity has not yet run its course.

At the annual meeting of Imperial Chemical Industries, Ltd., at London, recently, Lord McGowan, chairman, discussing the immediate future in Great Britain said that there seemed to be no reason to expect any decline in the general level of the country's activity, but that the rise in prices of raw materials and wages does not mean necessarily a similar tendency for profits.

Particularly optimistic regarding the outlook for the next two years was the forecast recently presented by Charles G. Dawes, Chicago banker and former vice president of the United States, in his book, *"How Long Prosperity"?* He said:

"Current business commentators, in my judgment, have thus far considerably under-estimated the extent during the next two years of coming prosperity and business activity in all lines, especially in fundamental durable goods, including steel and iron."

While he is thus optimistic over the outlook for the next two years Dawes is among those expecting a business recession within the next few years. Basing his forecast on a study of past business cycles, he predicts, barring wars or inflation:

"That a high degree of prosperity will maintain in this country until 1939.

"That beginning . . . in the summer or fall of 1939, there will be a stock market collapse.

"That there will then ensue in the United States a minor recession in business of one to two years.

"That this recession will be followed by a period of prosperity."

Thus the new prosperous period would begin some time between late 1940 and late 1941.

Beyond that time no prediction was offered. But the accompanying charts indicated that the new period of prosperity would be comparatively short; that there would be another stock market collapse in 1942 or 1943, followed by another business recession.

Earlier Forecasts Accurate

This forecast has received much attention, in view of the remarkable accuracy of two earlier forecasts by Dawes. The Chicago financier predicted, about six months in advance, that July, 1935, would bring a pronounced upturn in the heavy goods industries. To the month, that prediction was fulfilled.

Again about six months beforehand, he predicted that by the early part of 1937 the steel mills would be running almost wide open. When that time arrived, the steel plants were operating well above 90 percent of capacity, which meant 100 percent of the capacity that the industry had in 1929.

Collapse in 1939 Doubted

Despite the previous accurate predictions by Dawes, however, there is considerable doubting of his new forecast of an important business recession by late 1939. The doubters include, for example, Jesse H. Jones, who became chairman of the Reconstruction Finance Corporation through exceptional understanding of business and finance. Jones asserted that he saw nothing to substantiate the prediction of a business decline in 1939.

"Conditions are good," he stated, "and they will continue so for a good many years, because the country has been on half rations for five or six years. We have to catch up."

Petroleum Use Stable

It is perhaps true that the oil industry has less to fear than some other industries, from either a temporary trade lull such as some expect shortly, or from a more important business recession within the next few years, such as the Dawes forecast envisions.

For the consumption of oil is as nearly depression-proof as the use of any important commodity, being comparable with the little-changing demand for tobacco or foods. Even at the bottom of the recent depression, petroleum consumption showed a decline of only about 8 percent. The normal trend of oil consumption still is upward, not horizontal; and even the arrival of "hard times" might mean only a less sharply rising or stationary consumption of oil, and not necessarily a decline of the demand.

Oil Industry Affected

Nevertheless, when the oil industry is geared to a particular trend of oil demand, difficulty arises in making production conform with a less favorable demand situation. And the whole history of the industry testifies that sustained production in excess of demand brings depressed prices and financial losses.

Even though the expectations of an impending trade lull may not materialize, there is already a substantial reason for a tightening up on crude oil production, since output has been excessive for over three months. If the dullness of business actually occurs, it will constitute another important reason for stricter control of crude production.

ON THE OPPOSITE PAGE the editors of The OIL WEEKLY are pleased to begin the first of a series of 26 articles dealing with the highly important question of proper care and maintenance of equipment.

In working on this series, our editors have found that, contrary to the idea of many, equipment is not abused just because the oil industry is a rough and tumble industry which is willing to spend any amount necessary to get the oil. There is some indifference to abuse—yes—and sometimes it isn't located exclusively in the field. But, the biggest reason behind improper care of equipment, and consequent failure, is, generally speaking, lack of information and training first, lack of appreciation as to what the damage amounts to second.

Next week our editors take up "*Sucker Rod Life Prolonged by Elimination of Abuses.*"

R. L. DUDLEY, *Publisher.*

Care and Maintenance of Wire Ropes[1]

THE greater portion of wire rope failures can be prevented and large savings made by the user if steps are taken to eliminate the common abuses while installing and operating, and by proper maintenance of both rope and contacting equipment.

This article deals with the abuses that are common to all wire ropes.

By WALTER VOIGTLANDER*

THE abuse of machinery and equipment of any kind in many fields of service is often unavoidable and most frequently occurs through ignorance. In later, newly developed equipment the user is cautioned at the outset what care must be taken to prevent abuse and how to get the most economical service. Old types of equipment that were introduced before the present world-wide mechanical awakening of some 30 years ago, did not have behind them the appreciation, on the part of the users nor frequently of some of the manufacturers, of the products' mechanical properties, service possibilities and limitations. Wire ropes come under this class.

Wire Rope Is Machinery

Wire rope is really a piece of machinery whose individual parts are made to a tolerance and to a working clearance as close as the parts of an automobile engine, yet very little attention is given even to *reasonable* care in the installation, the operation or the maintenance of the wire rope. The wire rope manufacturers are largely to blame for not having been more aggressively insistent at the outset of the introduction of wire rope into the oil fields some 45 years ago, upon the proper care in handling and use. There was, no doubt, a lack of knowledge on the part of both the user and the manufacturer as to the precautions necessary to obtain most economical service from the wire ropes, and during the early days of the use of wire rope for drilling, a very strong precedent was established in accepting abuses as an inevitable, unavoidable part of the service and the blame was put on defective rope, the wire rope manufacturer being made to bear the burden of proving the rope was not defective rather than trying to overcome the destructive practices of use. In the face of the strongly established precedent on the question of abuses and adjustments, the wire rope manufacturers' more aggressive educational efforts of the past 15 years have met with a stiff resistance particularly from the small users. On the other hand, the larger users of oil field ropes who have accepted the educational advances of the wire rope

[1] First of a series of articles on care and maintenance of oil field equipment.

*Chief Engineer Union Wire Rope Corporation.

manufacturers have made large savings; the writer has personal knowledge where one large producer has saved as much as $100,000 yearly on wire rope alone beside other simultaneous savings on other complementary equipment, through following out the suggestions of a wire rope manufacturer in the handling of the rope during installation and during the use itself and in the maintenance during use and when the rope is removed for use on another well or for putting into temporary storage.

Because of the strong precedents long established that *any* failure of the wire rope from any cause whatever is due to defective workmanship and/or material in the rope, any educational advances by the rope manufacturer is looked upon by many of the users as an alibi. Yet it can be clearly demonstrated to anyone who is willing to approach the subject with an open mind, that wire rope is one of the most uniform products of fabrication that can be constructed. Wire rope is made on precision machines with no manual manipulation except to set-up and adjust the machine, and made of wire which, by the very nature of its drawing process, is a product of maximum uniformity as easily checked by testing every coil at both ends with frequent check tests from cuts taken within the length of the coil.

Many Lines Ruined Before Using

Coming particularly to the problem of oil field wire ropes. Many drilling lines are ruined partially or even wholly, before they actually drill a foot of hole. Most prevalent of the abuses of installation are:

(1) *Dog Legs* (See Figure 1) as the result of pulling slack loops into kinks, or jerking the rope around posts, under sills or girts or any other rigid part;

(2) *Curly Rope* by pulling the rope with a more or less steady tension under girt, sill or too small a sheave set in the derrick floor;

(3) *Improper* or *Insufficient Seizing* of the rope preparatory to cutting or socketing;

(4) The very prevalent *Improper Methods of Socketing the Mandrel* (See Figure 2) as this very frequently and definitely develops either high (loose) strands (See Figure 3) or drawn (tight) strands.

Rig Equipment Influences Service

If the rope safely gets past these and other miscellaneous hazards of installation, the condition of the rig equipment greatly influences the service possibilities:

(1) *A Pinching Groove* (See Figure 4) in a crown sheave, either from being originally made too small or from having been worn small from continued use with worn ropes, will cause both broken wires from fatigue (wickered wires) and will also cause the rope to spin unduly with an accompanying change in the length of the rope lay;

(2) *Uneven Winding* of the rope of the shaft or draw works, particularly on the first layer will cause an increased unevenness in the winding of the rope in succeeding layers resulting in excessive wear and broken wires;

(3) *Improved Lagging* (See Figure 1) between dividers causes many dog legged lines which result in "spot wear" and even in broken ropes, yet many users are convinced in their own minds that there was that impossible condition of a "bad spot in the rope" caused by a supposed improper "tempering" of the wires, a condition which in the very nature of the process of wire drawing cannot exist.

Improper Socketing Big Abuse

Numerous complaints from the field when investigated have proved conclusively that improper socketing is the cause of most of the major sources of trouble with cable tool drilling lines.

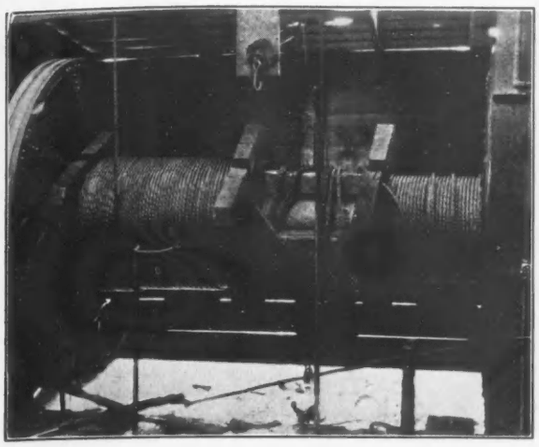
Figures 2-A, 2-B, 2-C and 2-D show but a few of the destructive methods of socketing mandrels. These photographs are made from rope ends actually picked up from various rigs in the Mid-Continent district. To take just one example: the method of

TABLE 1
Comparison of Mandrel Socketing Tests
Stresses in Percent of Rope's Breaking Strength

Test No.	Socketing Method	Started to Pull Out	Ultimate Rope Failure	Nature of Failure
1	All strands bent to one side and babbitted...	58.2	85.2	Broke 2 strands in mandrel
2	All strands bent over a tie wire, spaced around rope and babbitted similar Figure 2-D.....	55.4	78.6	Pulled out of mandrel
3	Socketed similar to Test 2 except strands were bent back over a soft-rope wrapping. Dry socket, not babbitted.....	15.25	47.1	Pulled out of mandrel
4	Socketed similar to Test 2 except strands were bent in toward center and babbitted..	12.7	93.	Broke 3 strands in mandrel
5	Strands bent back over tie wire as in Figure 2-C, but each strand was given one splice tuck. No babbitt used.....	5.1	91.8	Broke 1 strand in mandrel
6	Rope cleaned in gasoline and dried, then babbitted without unlaying strands.....	33.1	33.1	Pulled out of mandrel
7a	Rope ends "mule-tailed", wires cleaned by wiping off the grease; babbitted.....	43.	82.2	Pulled out of mandrel
7b	Rope ends "mule-tailed", wires cleaned in gasoline, wiped dry; babbitted.....	81.2	99.5	Broke in clear between fittings
8	Rope ends "mule-tailed", cleaned with hydrochloric acid, rinsed hot water, mandrel, and socket poured with zinc.....	.....	100.0	Broke in clear between fittings

FIGURE 1

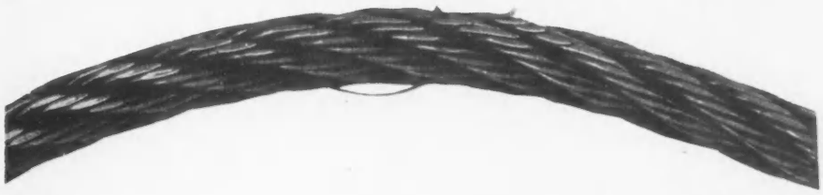
A Few Harmful Wire Rope Results Caused by Dog Legs



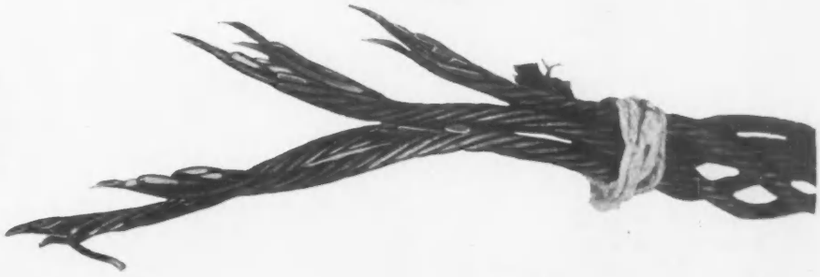
Dog legs are the inevitable result of kinks; they are caused also by numerous other forms of abuses. Anything that puts a permanent set or sharp bend in a rope causes dog legs.

Improper lagging on the shaft (cut at left) resulted in the dog legs shown in photo immediately below.

This dog leg (right) has just been made and the wires are not yet worn but is a sure start of a damaged line.



The top view (left above) and side view (left below) of a partly worn dog leg.



A rope failure (right) due to all the outside wires wearing to a knife edge; directly a result of a dog leg.

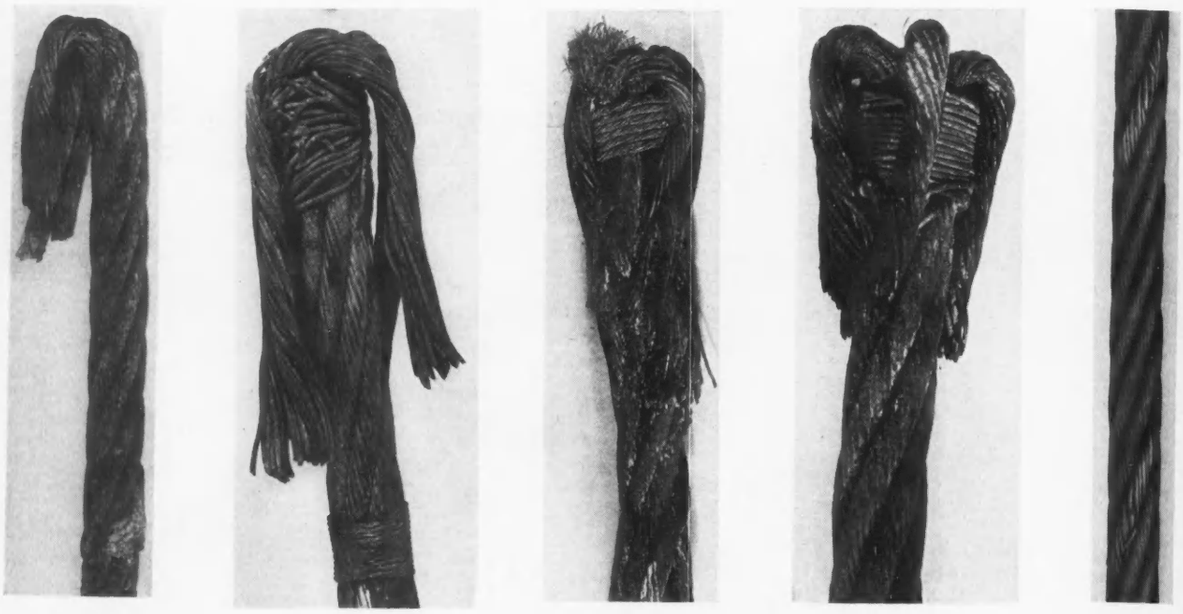
A rope dog leg (left) caused by being crushed when run over by a steel-wheeled vehicle.

FIGURE 2

Improper Methods for Socketing a Mandrel

High or drawn strands result from improper socketing, which cause premature rope failure. Improper socketing shown in 2-A, 2-B, 2-C and 2-D; High-strand in 2-E.

2-A 2-B 2-C 2-D 2-E



Proper Methods for Socketing a Mandrel

Figure 2-F shows a drilling rope just cut, having three proper tie wires. Figure 2-G shows two additional tie wires, one 16 inches from end and other at a distance equal to length of mandrel, having been put on. Remove second and third tie wires. Figure 2-H shows the mandrel slipped over the rope. Now remove the end tie wire; cut out the hemp center; mule-tail the wires. Wipe grease from wires. Figure 2-I shows mandrel slipped over mule-tail until wires are flush with top of mandrel. Now set rope vertical in vise; seal the bottom of the mandrel with clay or like material; pour in zinc (not babbitt or lead).

2-F 2-G 2-H 2-I

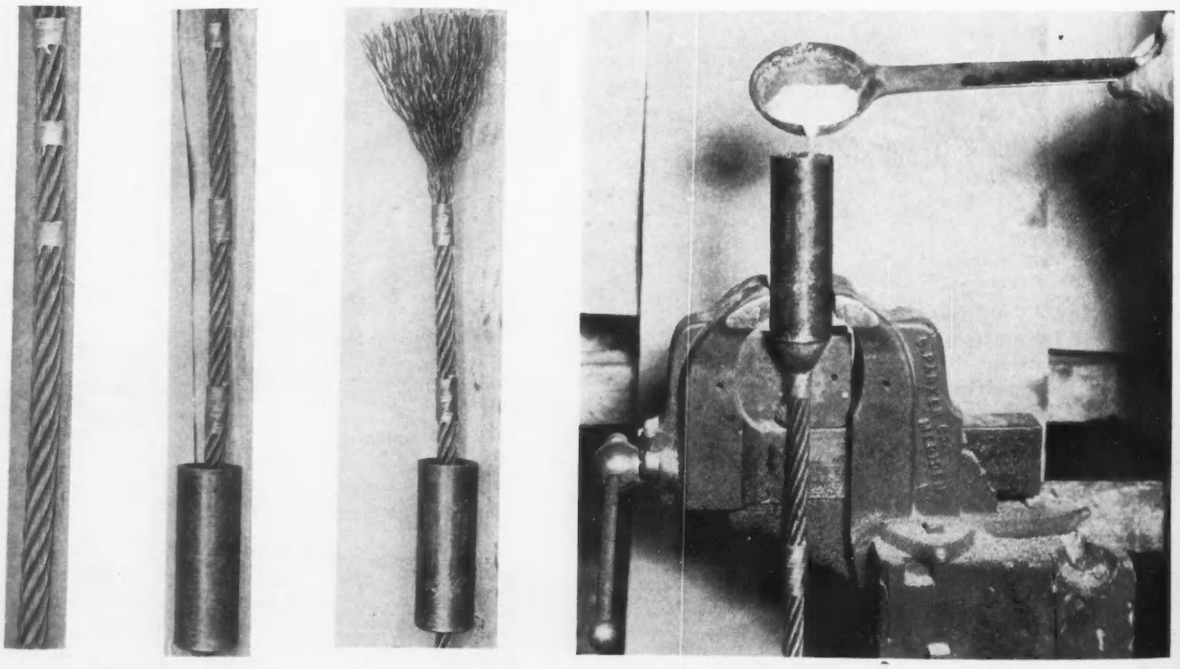
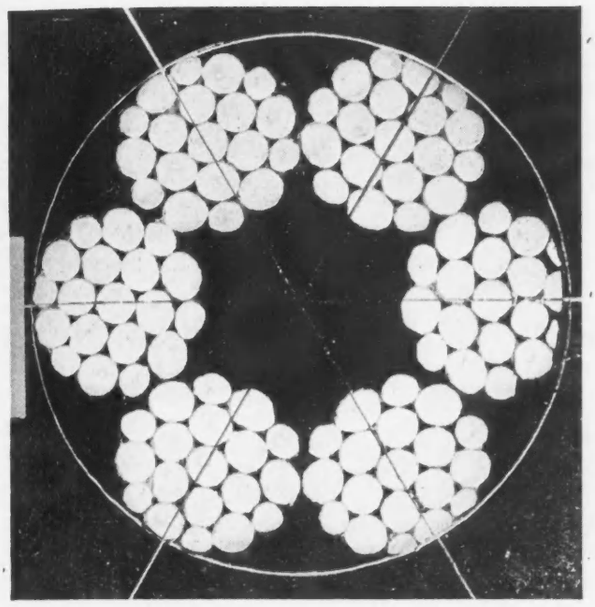


FIGURE 3

High Strand Causes and Results

High strands are the result of: improper or insufficient seizing; improper socketing; may start from a badly worn spot at a dog leg or kink; or from a distorted section of rope slipping excessively through the clamps; and other careless causes.



The rope above has three high strands as a result of being permitted to slip through the clamps, and cannot be expected to give continued service.

In the photograph left note that the strand farthest to the right is worn more than the others because it became loosened (and "high", that is, moved away from the core) thus being exposed to greater abrasive wear. The two adjacent strands are also becoming slightly high, no doubt due to the worst worn one collapsing from an excessive number of worn and broken wires.

Rope damaged by spiking (right) is liable to develop loosened or high strands.

A "flag" stuck through a rope (left) will often raise and loosen a strand.

socketing shown in Figure 2-B resulted in high-stranding the wire rope as shown in Figure 2-E. This high-stranding was observed for a distance of 2800 feet from the tools up to the clamp after only two days' operation. The line above the clamp was not high-stranded and when cut to this point and properly socketed no further trouble developed.

In the face of such evidence a series of socketing tests were made to determine conclusively the value of proper socketing. Prepared samples all cut from the same stock reel of one-inch 6 by 19 wire rope were made up according to the more prevalent methods of socketing observed in the field. To one end of each sample a standard closed wire rope socket was attached by the usual wire rope shop method of "mule-tailing" the wires, leaving the wires straight (ends not bent). The ends were cleaned with hydrochloric acid and poured with melted zinc (not babbit, lead, or any other low-melting metal or alloy). To the other end of each sample a mandrel was attached using in each case one of the more common methods found in actual use in the field. The results of these interesting tests are outlined in Table 1.

It will be clearly noted from the samples tested that all socketing methods, with the exception of that shown in Tests No. 7a, 7b, and 8, that of "mule-tailing" the wires and keeping them straight, resulted in unequal movement within the mandrel. In no case was there any movement or failure within the standard socket. In each of the first six tests here listed, the failure was within the mandrel.

After trying practically all the metals and alloys commonly used for socketing, the only one found reliable in its holding power was zinc, commonly called spelter.

In actual field service wire rope rarely fails by breaking in the mandrel; instead, as shown in Figures 2-B and 2-E, the uneven movement of the strands within the mandrel has caused high or drawn strands to develop; rope end, Figure 2-C, actually caused two tight or drawn strands for 2200 feet starting from the tools, and when cut off above the clamps and properly resocketed, no further trouble developed.

In every case where babbitt was used there was some pulling out of the rope end within the mandrel. In each test where zinc was used the standard socket

FIGURE 4

A Pinching Groove is Very Destructive to Wire Rope

A groove gauge the size of a new rope must seat in the bottom of the tread of the groove without any gap between gauge and sheave; preferably the groove should be a little larger than the rope. It is wise to test all grooves and rope for fits. A gap like that shown to left would result in conditions typified by the rope below.

This new rope was damaged as shown in 1½ hours as against four weeks for a similar grade and construction of rope slightly smaller to fit the groove. The ropes were used on the same machine, but the smaller one did not pinch.

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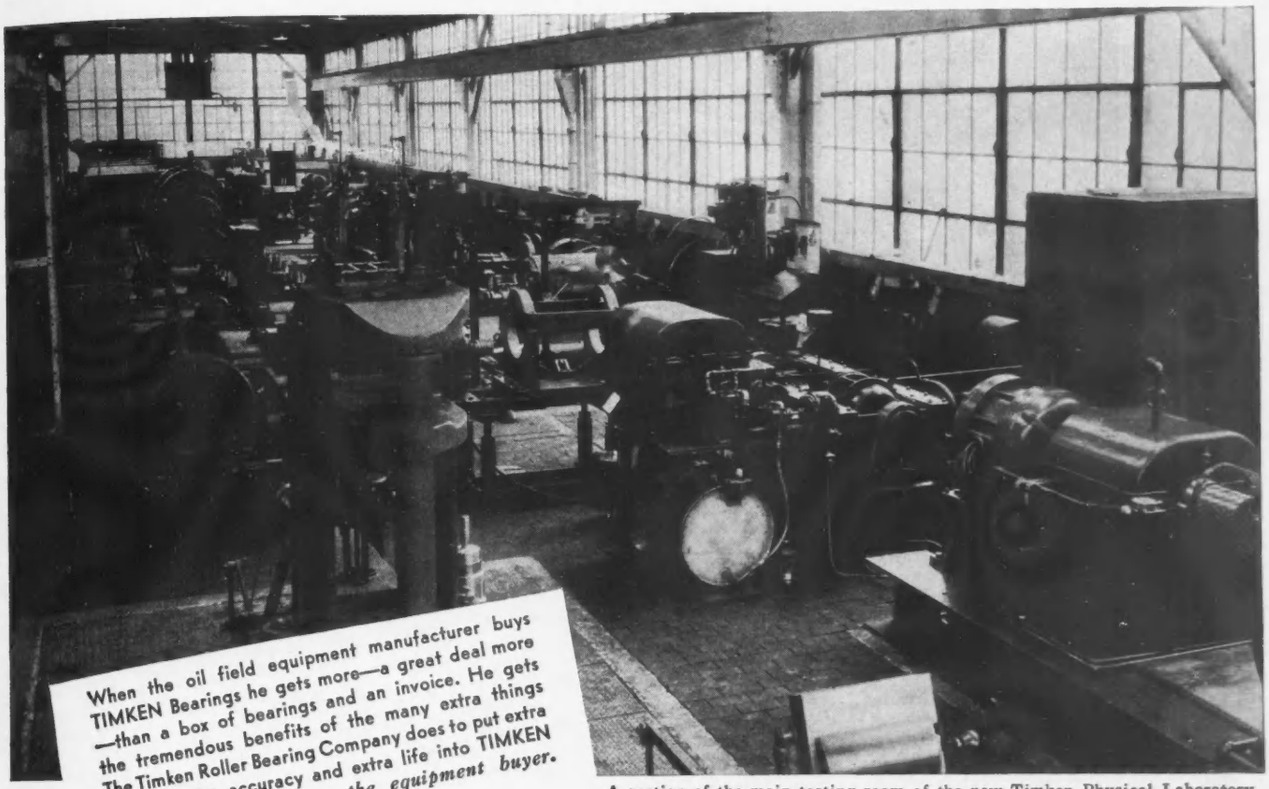

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THE TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO

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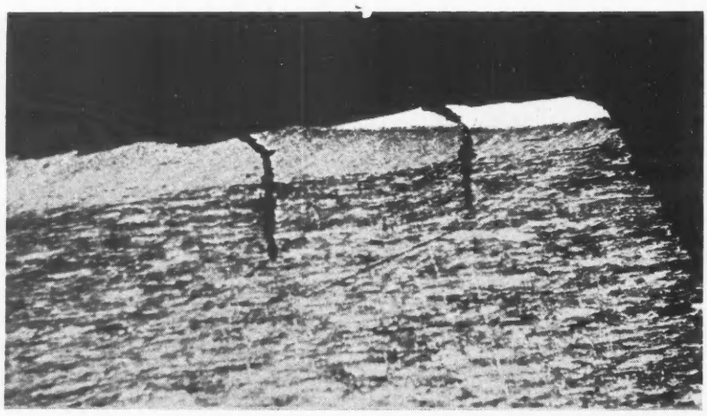
FIGURE 5

Slipping Rope Through Clamps Is Very Destructive

(The three micrographs taken at magnification of 100 times)

5-B



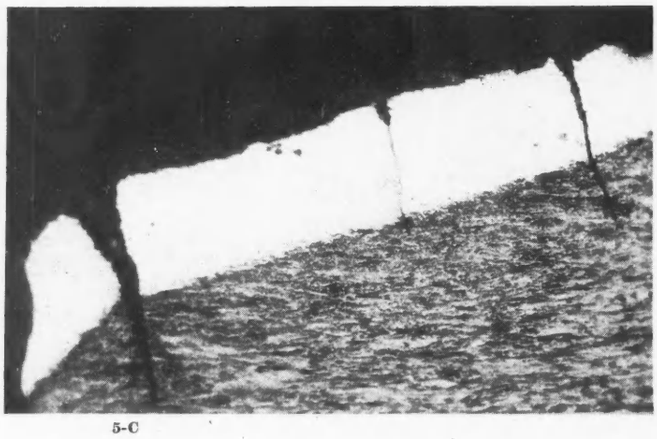
5-A

Pictures 5-A and 5-B show the result of moderate clamp slipping. The surface of the steel wire is changed in a fraction of a second from a normal drawn wire structure to a glass hard (martensitic) structure. Note the effect of still a second slipping in upper right section of 5-A.

5-D

5-E

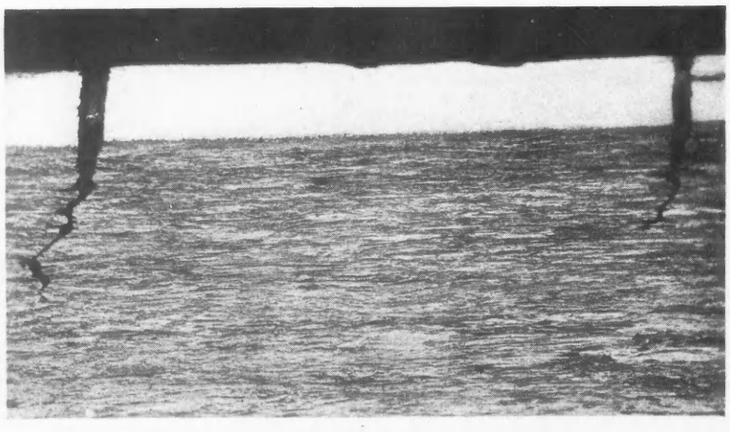
Pictures 5-C and 5-D show the result of very heavy clamp slipping. Note the great depth of the hardened surface in 5-C, caused by the intense instantaneous heat generated by the excessive clamp slipping.



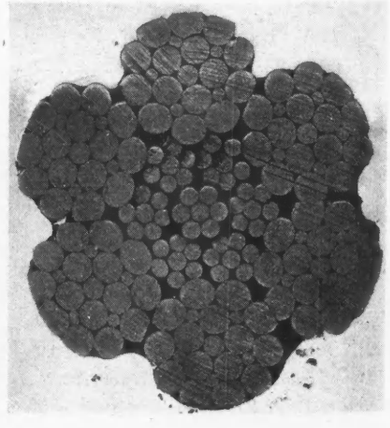
5-C

Pictures 5-E, 5-F and 5-G show the result of a six months' normal service on the outer wires of a rope subjected to considerable tensile stress and abrasive wear, but without any detrimental heat by friction. Picture 5-F is a good illustration by contrast of how destructive the clamp slipping of 5-C really was, as 5-C is the result of the hardening effect of a fraction of a second while 5-F is the result of six months service.

5-F



5-G



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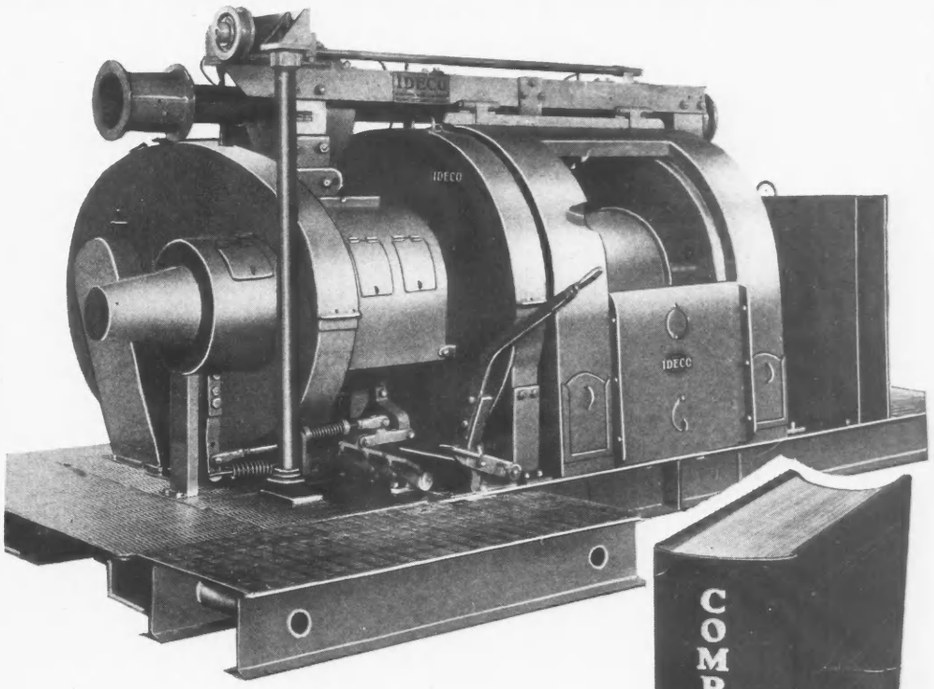
BIG GIANT DRAW WORKS



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Branches in All Active Fields

was attached as in general rope mill practice by properly cleaning the wires and pouring in molten zinc; in no case was there any movement within or pulling out of such attachments with the use of zinc.

The tests show the unreliability of any other method of preparing the rope end, as compared with "mule-tailing" the wires, leaving the wire ends straight.

The first 7 tests show that babbitt (or lead or any other low melting alloy) will not hold, as compared with zinc.

See Figures 2-F, 2-G, 2-H and 2-I for proper methods of socketing so as to prevent not only pulling out of rope, or breaking within the mandrel, but also to prevent high strands or drawn strands while in service and at stresses frequently much below the breaking strength of the rope.

Many Cable Tool Rig Abuses

In cable tool drilling operation there are various types of abuse besides the unavoidable hazards to be met; before discussing some of these let it be understood at the outset that wire rope, like a new automobile or a new pair of shoes, must be "broken in" so as to give the most economical use. The driller says he hasn't time to run the tools in and out of the hole half a dozen times at the start of a new line, yet expects the rope manufacturer to "stand behind his line" no matter what happens to the rope. Standing behind the line from the driller's point of view usually means to make any adjustment the driller thinks is due him for short service whether the rope is abused or not. Some of the common avoidable hazards and abuses imposed on wire lines during cable tool operations are:

(1) *Slipping the Rope Through the Clamps* is so universal today that it is regarded as "standard" practice, the claim being that it is impractical and a waste of time to run out the temper screw. We might as well frankly face the problem:

(a) The wire rope manufacturers must meet the demand for a drilling line that will have plenty of "spring" or "reach" and this can be secured to almost any desired degree. It has been found, however, that to give the line too much elasticity results in a much greater percent of complaints as 90 percent of the drillers will force the line to over-reach its safe elastic stretch; such a line also will open up or "birdcage" above the clamps a great deal more than a line with less elasticity. Such birdcaging above the clamps has frequently and definitely caused a "bad spot" in an absolutely faultless line, in numerous cases resulting in one or more loose or high strands, starting at any point in the rope where this birdcaging was particularly severe. If the birdcaging effect from clamp slipping is to be overcome, then the "reach" or elasticity of the rope is greatly reduced and the line is stiff and will not "make hole" fast enough to suit the driller; it would be more like drilling with a sand line. The problem for the wire rope manufacturer then is to strike a happy medium of having as much elasticity with the least per-

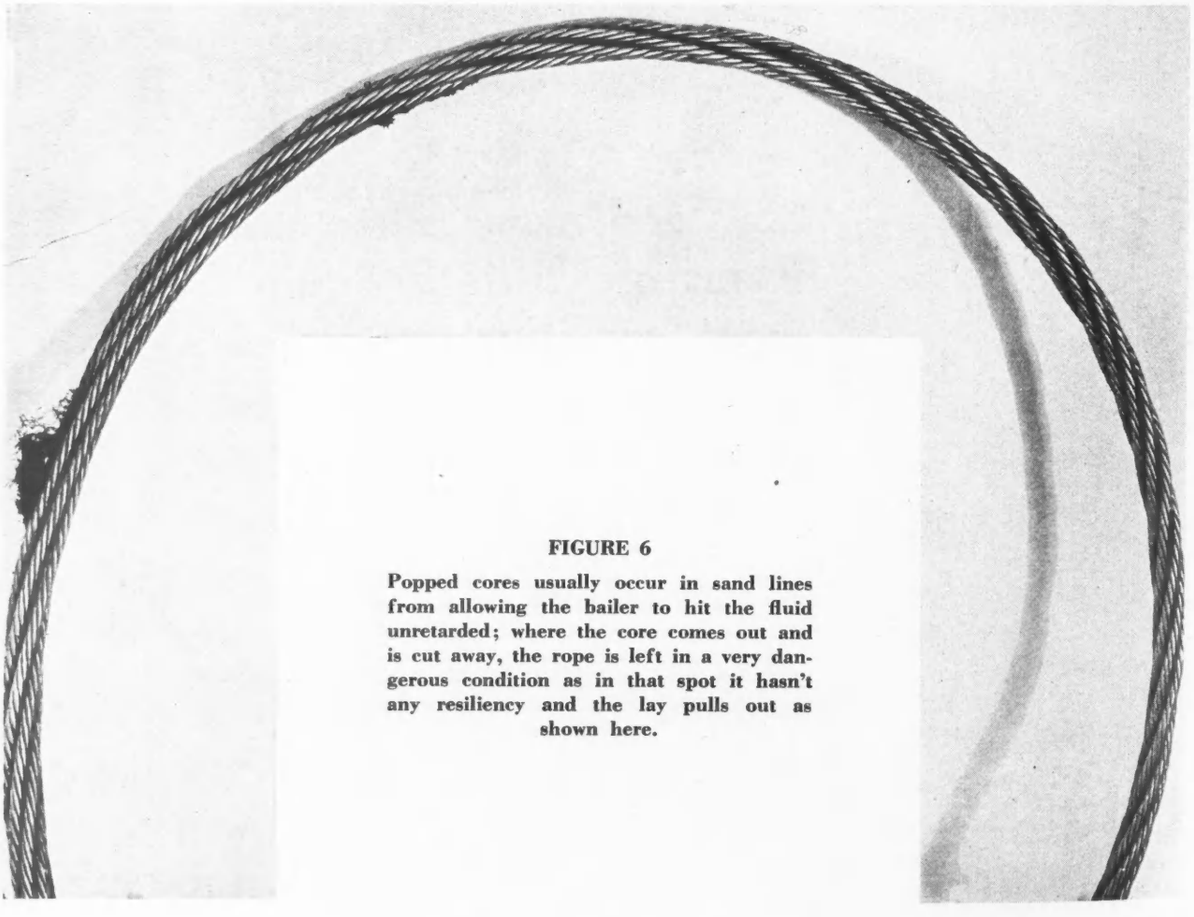

FIGURE 6

Popped cores usually occur in sand lines from allowing the bailer to hit the fluid unretarded; where the core comes out and is cut away, the rope is left in a very dangerous condition as in that spot it hasn't any resiliency and the lay pulls out as shown here.

Type C

IDEAL

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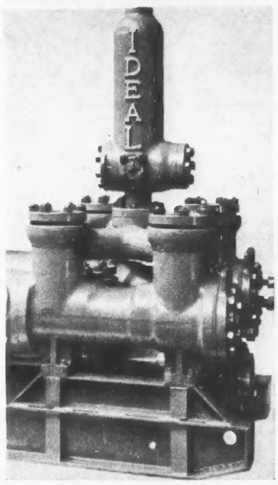
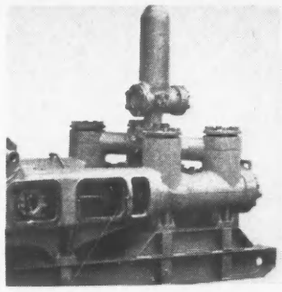
POWER DRIVEN SLUSH PUMPS

High Fluid End Working Pressures



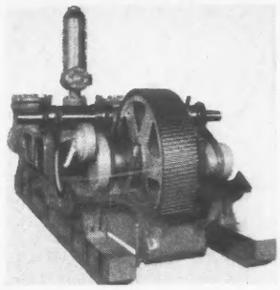
All the advantages of high pressure pump circulation—better control of formation pressures—increased footage.

Slush and Water Proof Crank Cases



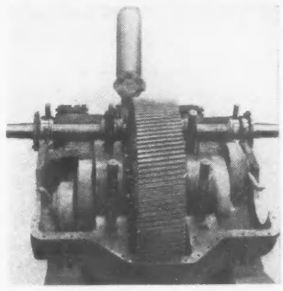
Effective exclusion of slush and water from power ends by Ideal patented baffle wall and plate assembly.

Full Capacity Power Ends



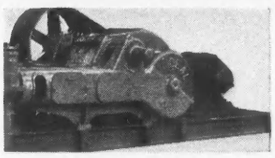
Power ends of sufficient size and strength to operate fluid ends at sustained maximum capacity—assures same performance as corresponding Ideal Steam Pumps.

Shafts Mounted on Roller Bearings

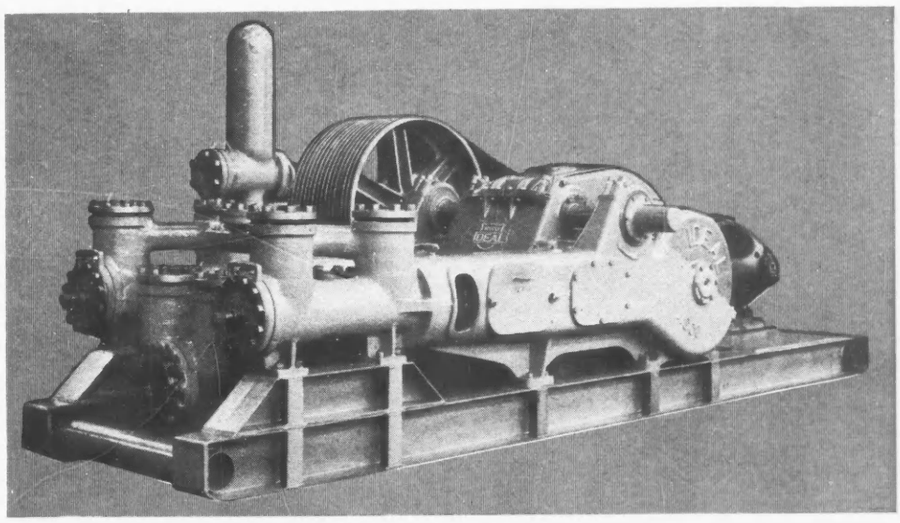


Gives very desirable short overhang at both ends—eliminates tendency of pinion shaft failure due to bending load.

Convenient Driving Arrangements



Pumps may be driven from either side, direct connected or with V-Belts—Pinion shafts tapered for easy removal of sheaves.



NSCO
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National

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missible amount of birdcaging—two opposing requirements.

(b) If the above problem were the only one encountered from clamp slipping, it would not be so bad but the friction (See Figure 5) of slipping is so intense that the heat generated actually hardens the surface of the wires which later break square off with only slight additional service; this type of abuse results in a series of broken wires in a line approximately parallel to rope axis along the surface of the rope.

(2) *Briny or Acidulated Fluids* in the hole are both very destructive to both the steel in the wires and to the hemp core. Proper and adequate lubrication of the rope particularly where the fluid has excessive action to corrode and rust the wires or to rot the core, will greatly prolong the life of the rope, largely in proportion to the extent of the lubrication. *Lack of lubrication* is the users' responsibility, just as it is the driver's responsibility to keep his automobile properly lubricated. In the case of the wire rope user, there has been the precedent of not needing to lubricate the rope whereas with a car the instructions at the outset have been to point out to the driver's need of protecting *his* car by periodic lubrication with no adjustment considered for failure to do so.

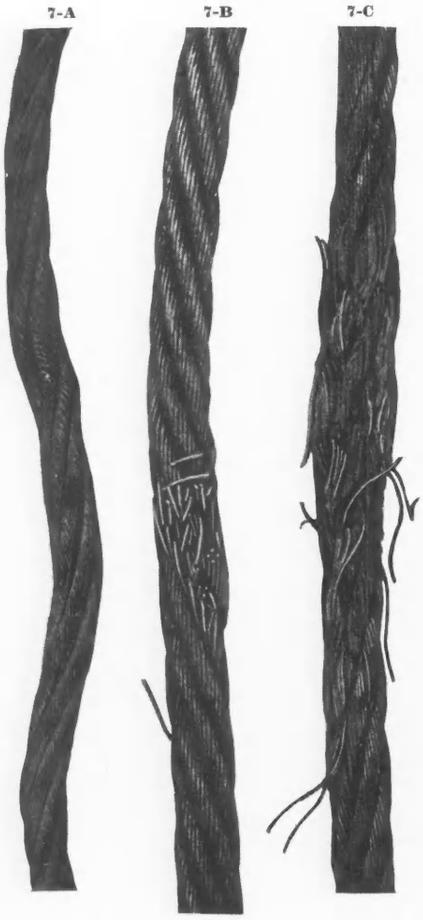
(3) *Running the wire rope too loose or too tight* in drilling, so that the inherent "spring" in the rope is not utilized to give the proper motion to the tools; "peg-legging" particularly, soon kills the spring of the rope.

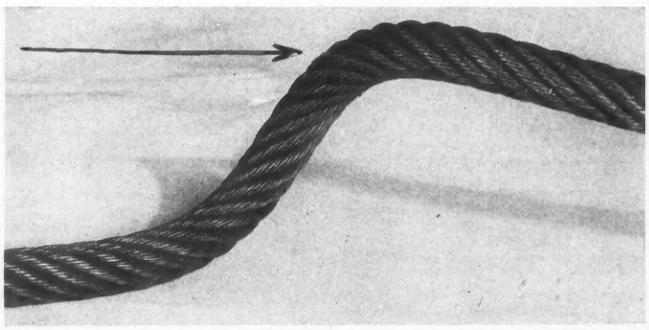
(4) In sand lines quite often *Core Popping* (See Figure 6) takes place by allowing the bailer to hit

FIGURE 7

Kinks Cause Severe Damage to Wire Rope

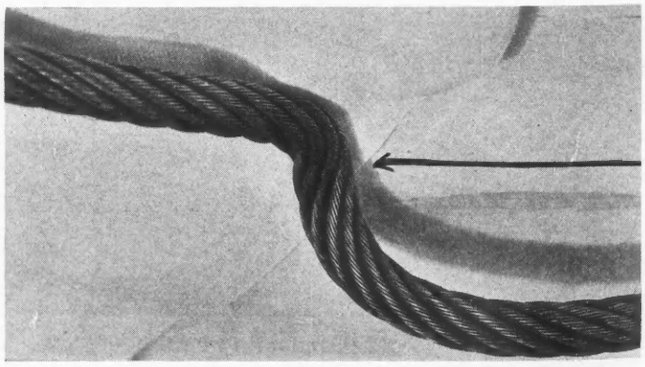
Kinks in wire rope cannot be successfully straightened out for at best they leave a dog leg. Where the kink is severe, the whole rope structure is distorted and the core is moved from its fabricated positions relative to the strands; any slight alteration of this relationship of the core to the strands will damage the core; the picture 7-A illustrates the results. If the distortion is excessive, the wires are damaged and the rope materially weakened; the other two ropes (Figures 7-B and 7-C) are examples. There are two kinds of kinks; one will tighten the lay of the rope and the other will open the lay. Both types and results are explained below. Picture 7-A shows strands and core greatly distorted. Pictures 7-B and 7-C illustrate two rope failures that result from "open" kinks.





A right hand kink (above) tightens the lay and causes the wires to break on the strand crowns (top of kink) at back of bend.

A left hand kink (below) opens the lay, as in 7-A, 7-B and 7-C, causing collapse of the core which results in "valley" breaks in the wires.



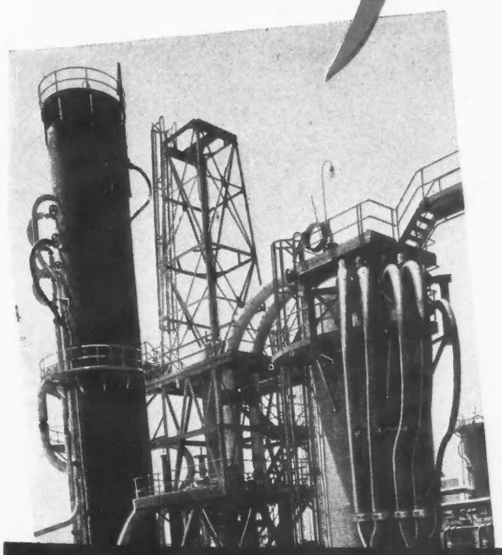
Lower Fuel Costs

Less Pumping

Less Storage Capacity

Less Tank Bottoms

THESE BENEFITS Accrue DIRECTLY TO THE Refinery



The largest increase in operating costs resulting from emulsified water in crude oil occurs in the refinery. The same factors that contribute to higher transportation costs are encountered—increased fluid volume; a more viscous crude; and bottom settlings. Still and condenser capacities are materially reduced; still and condenser corrosion increased; and more fuel is required for evaporation.

Petreco Electromatic Dehydration of all emulsified crude as produced minimizes these difficulties for the refining department, assuring worthwhile reductions in operating costs, maintenance, and replacements. The savings are clearly reflected in the monthly earnings of even the smallest refinery. In addition, closer control of products are possible, assuring higher quality.

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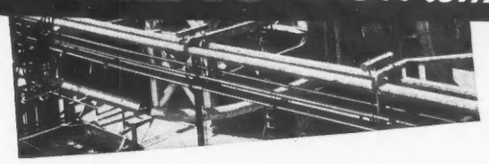

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SMITH LINE PIPE—SMITH PRESSURE VESSELS

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the fluid without slowing down sufficiently to prevent an over-run of the rope into the hole, with the result that the rope piles up on itself and actually *pushes* itself to form a birdcage, the core comes out between the strands and is then cut as the strands close together again.

Other Drilling Hazards

Some of the hazards of drilling, besides the abuses cited above, are caused by:

(1) *Cavey Holes* causing (a) stuck tools requiring excessive jarring or even pulling the rope far beyond its reasonable working load or even to the extent of breaking the rope, or (b) leaving such an enlargement in the hole that the rope, when slack, forms loops developing into kinks (See Figure 7) which are very destructive;

(2) *Excessive Abrasion* from certain sharp sands or shell formation, or from alternate hard and soft strata, frequently show up in some parts of the rope more than in others and give rise to the erroneous impression that some parts of the rope are softer than other parts;

(3) *Crooked Holes* causing excessive wear on one side of the rope resulting in premature rope failure and again the erroneous impression that parts of the rope are softer than other parts;

(4) Destructive briny or acidulated fluids in the hole require immediate and ample lubrication. Frequently, if not lubricated under excessive water conditions and the rope is allowed to become rust-bound, there results *One Strand Breaks*, (See Figure 8), wherein one strand will break without any appreciable lengthening of the rope lay; or else the whole rope may break under a load that would not over-stress a well lubricated rope.

FIGURE 8

A rust-bound rope will frequently cause a single strand to break as illustrated.

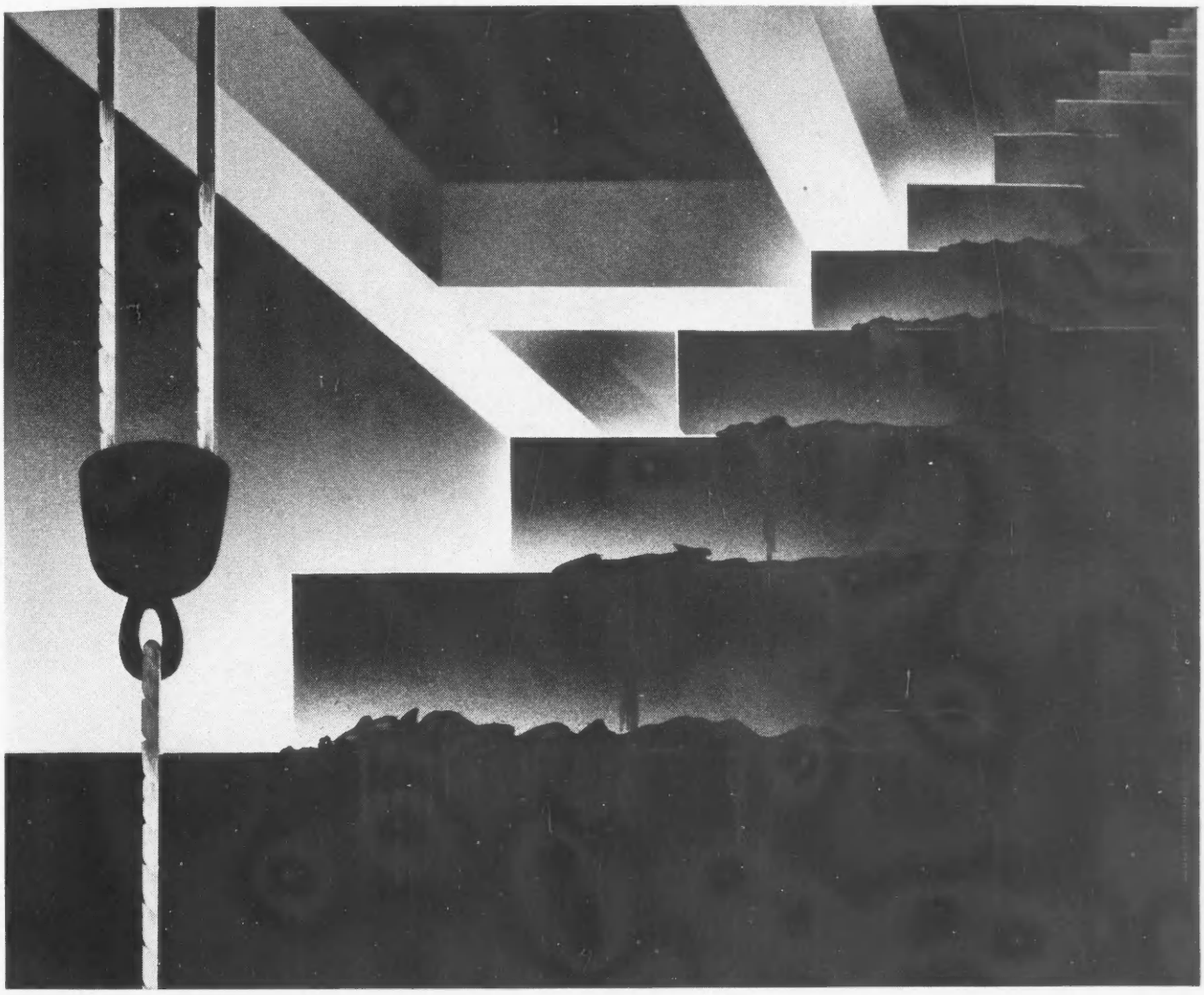
Conclusions

The above gives but some of the major causes for rope failures in drilling, which, we believe, anyone who reads with an unbiased mind will agree is not the fault of the rope itself and therefore not chargeable to the wire rope manufacturer, but must be assumed by the user. By eliminating the abuses of installation and of operation and by properly maintaining both rope and equipment, over which the rope manufacturer has no control, the greater portion of wire rope failures can be eliminated and large savings be made by and for the user.

The problem for the rope manufacturer is to present the facts in such a reasonable and convincing way to each individual user, that the user may yield the unjust advantage of the strong precedent and prejudice heretofore existing whenever the matter of rope failure and adjustment is brought up. While the monetary adjustment settled in the average oil field complaint represents but a fraction of the user's cost of other complementary losses, at the same time being a very substantial part of the manufacturer's cost, yet the co-operation of the user to take advantage of the manufacturer's research findings would benefit the user financially far more, and at the same time cut the expense of the manufacturer in doing oil field rope business to a point where they can both afford to carry out a more helpful program of research of mutual benefit.

It is a very significant fact that the same operators using the same machines in the wire rope shop, make ropes for every other field of service, yet in none of these other fields of service is there but a small fraction of the variety and amount of abuses and claims for adjustments as compared with the oil fields. This should prove to the broad minded oil field operators that they too can make the savings if they would but cooperate with the rope manufacturers who are specialists in their line.

Reprints of the foregoing article may be had at a nominal cost by writing The Gulf Publishing Company, Houston, Texas.



Maintenance saved is money earned

EVEN in products or equipment in which maintenance involves merely routine repairs, the use of Molybdenum steels can effect worth-while economies. But when maintenance also involves the cost of new parts, replacement labor, service interruptions, time and profit losses, the infinitely greater wearing qualities of Moly steels mean savings too substantial to be overlooked.

One of many actual instances proving the capacity of Moly steels to withstand rough service over long periods, is found in the lift-chain bushings of sand diggers. Chrome-Moly steel bushings replaced the former kind. Although subjected to terrific battering and continuous service, their records showed a decided increase in life and, consequently, a decrease in service interruptions and maintenance costs.

Under virtually every kind of operating condition, Moly steels and irons will prove their economy through greater strength and longer wear. Investigate. Send for our technical book, "Molybdenum." Ask us to mail you our monthly news-sheet, "The Moly Matrix." Consult our laboratory on your difficult ferrous problems. Climax Molybdenum Co., 500 Fifth Ave., New York.

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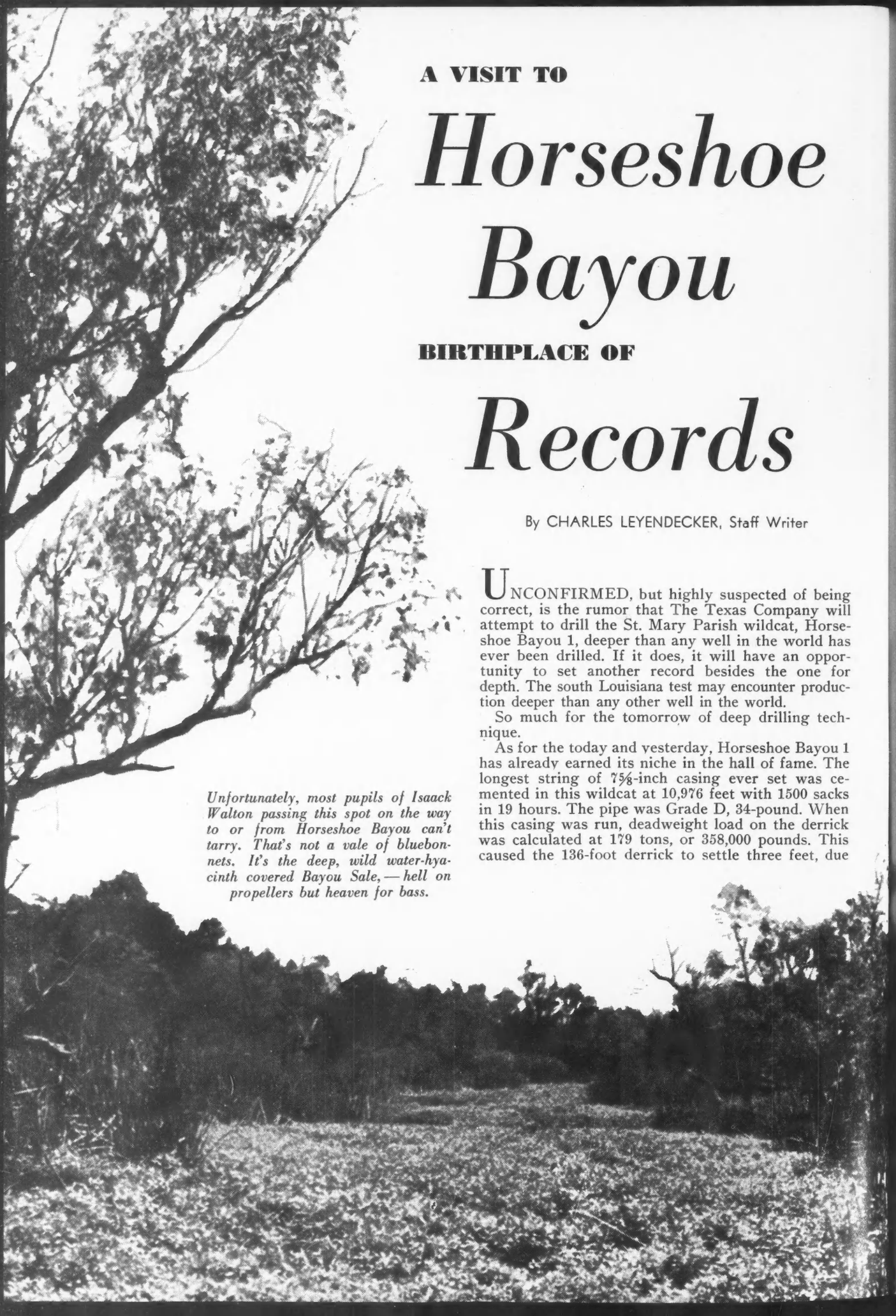
A VISIT TO

Horseshoe Bayou

BIRTHPLACE OF

Records

By CHARLES LEYENDECKER, Staff Writer



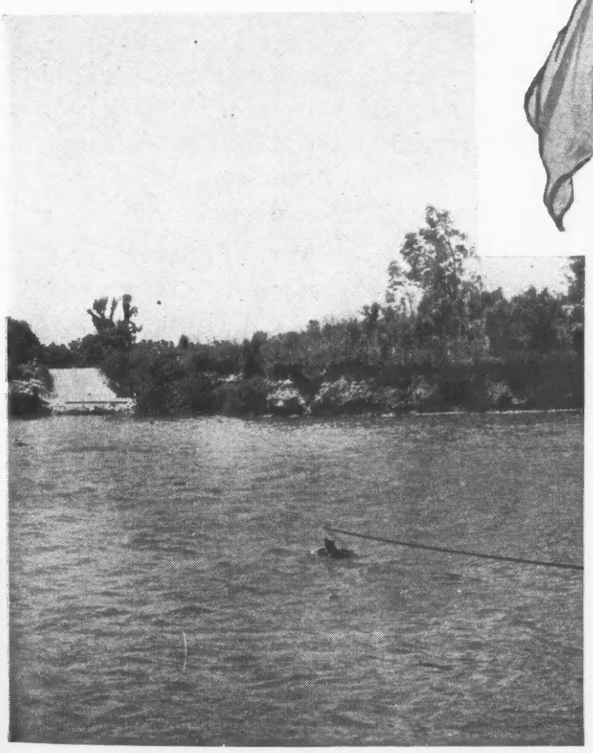
Unfortunately, most pupils of Isaack Walton passing this spot on the way to or from Horseshoe Bayou can't tarry. That's not a vale of bluebonnets. It's the deep, wild water-hyacinth covered Bayou Sale, — hell on propellers but heaven for bass.

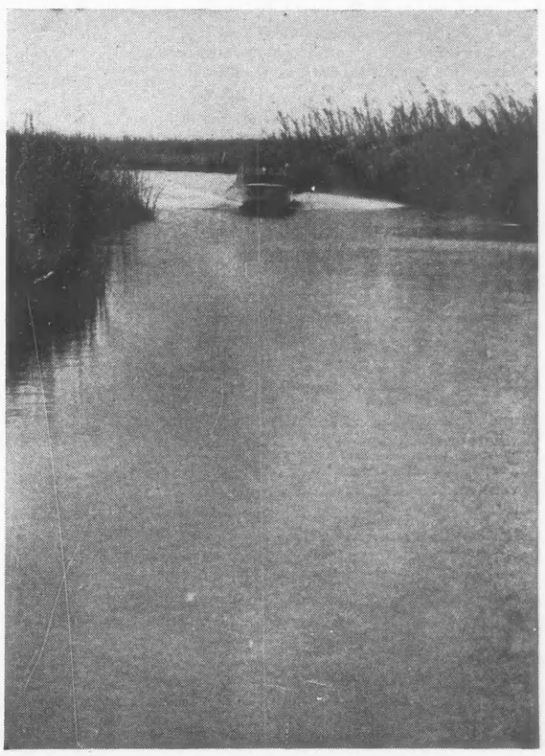
UNCONFIRMED, but highly suspected of being correct, is the rumor that The Texas Company will attempt to drill the St. Mary Parish wildcat, Horseshoe Bayou 1, deeper than any well in the world has ever been drilled. If it does, it will have an opportunity to set another record besides the one for depth. The south Louisiana test may encounter production deeper than any other well in the world.

So much for the tomorrow of deep drilling technique.

As for the today and yesterday, Horseshoe Bayou 1 has already earned its niche in the hall of fame. The longest string of 7⅝-inch casing ever set was cemented in this wildcat at 10,976 feet with 1500 sacks in 19 hours. The pipe was Grade D, 34-pound. When this casing was run, deadweight load on the derrick was calculated at 179 tons, or 358,000 pounds. This caused the 136-foot derrick to settle three feet, due

Even though The Texas Company's Horseshoe Bayou 1, a record breaker, is one of the most important wildcats in South Louisiana today, it would be hard to get a scout to visit it during the graveyard shift. Such would involve walking through the above jungle,—as bountifully endowed with reptilian life as it is with tropical flora. At night it would be more difficult to stay on the 4 x 12 board walk raised above the mire,—and alligators and snakes. But once through the swamp in daytime, the flag, below, is raised, calling the boat.

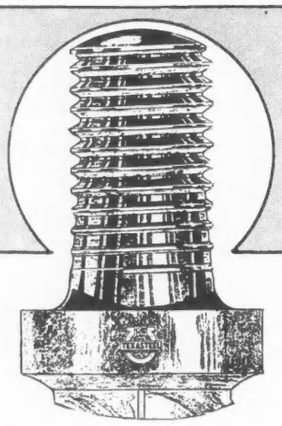




Crossing the intercoastal canal, above, puts one in St. Mary Parish and the Louisiana of Crinoline days. The ferry's power comes from a temperamental two-cylinder gasoline motor, assisted during balking spasms by a lone darky.

The men at the derrick have seen the flag, and after a wait of about 15 minutes "Miss Helen" comes roaring around the bend to transport visitors to the wildcat, rumor has projected to 13,000 feet.

Texasteel



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Balance—whether it's walking a tight wire or pumping a well—means perfect coordination. Texasteel Pumping Equipment achieves a modern marvel of balance with a four well hookup so perfectly coordinated that the entire hookup can be turned over by hand cranking the engine—a tribute to Texasteel design and the new patented dust and dirt proof Texasteel bearings.

An East Texas operator who installed Texasteel Equipment throughout called our attention to this perfect balance. But we've spent 18 years developing and testing every piece in our line, so it's not surprising that they work so well together.

If you want to profit from perfect balance in your pumping equipment, call in the Texasteel man in your district and let him tell you the whole story of coordinated pumping equipment. Let him show you how Texasteel can save you money.

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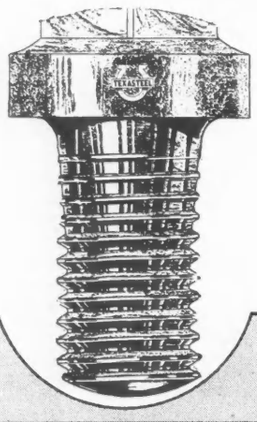
TYPE NM is a double pin, high tensile strength sucker rod, fitted with non-corrodible metallic couplings. Recommended for unusually heavy pumping conditions, especially where large amounts of salt water must be handled.

TYPE N is a double pin sucker rod highly resistant to corrosion. It is especially adapted to West Texas and New Mexico fields where acid is a paramount problem. Slightly lower tensile strength than Type NM but it handles average pumping load efficiently.

TYPE A is made in both double pin and box and pin type. High tensile strength. Recommended for heavy loads with no corrosion present. Today many of the deepest wells in the Mid-Continent area are equipped with Texasteel Type A Rods.

TYPE C is made only in box and pin style and recommended for light pumping conditions where an average priced rod is desired.

Every Texasteel Rod is coated with rust preventive paint and fitted with metal thread protectors.

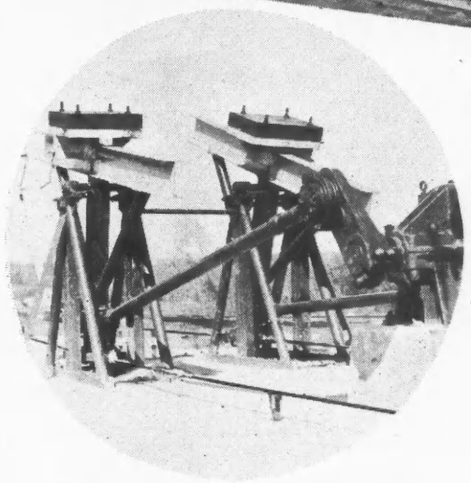


TEXAS STEEL

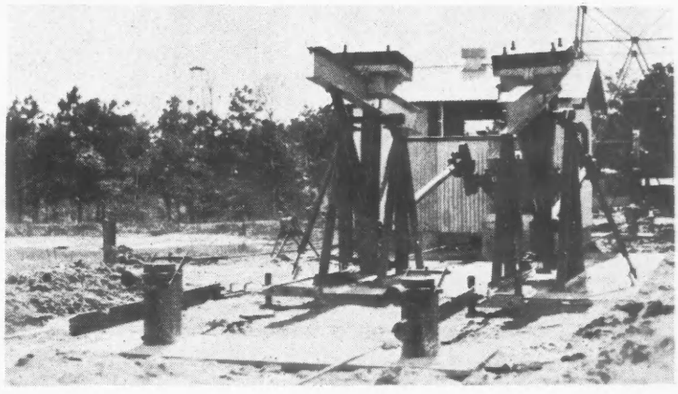
PUMPING EQUIPMENT

TEXASTEEL

These photographs of a four well hook-up on a W. B. Hinton lease in East Texas show two of the new Texasteel Counter-Balanced Backside Assemblies. This hookup is so perfectly balanced that the entire hookup can be turned over by hand-cranking the engine. Texasteel Pumping Equipment is used throughout the lease.



This new improved Texasteel Pendulum Type Backside Assembly has an easily adjusted counter balance, while the Special Bridle arrangement for the rod line connections gives equal distribution on all four bearing points. This assembly can also be furnished with the Texasteel automatic Safety Knock-off Assembly built into the frame.

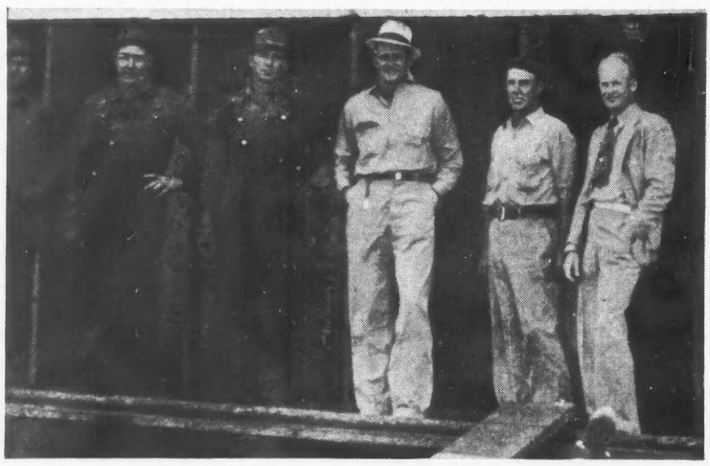


COMPANY • *Manufacturers* • **Ft. Worth**

to the swampy country. The derrick is understood to be built to withstand a load of 637,000 pounds.

The casing record is world's record No. 1.

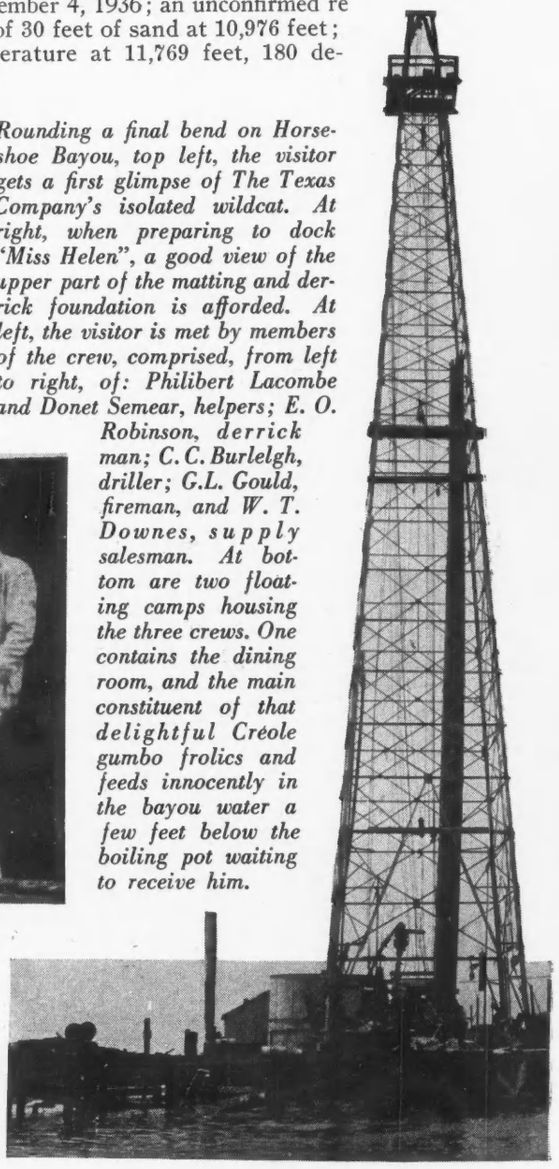
World's record No. 2 set by the Horseshoe Bayou test was that for length of 12½-inch hole. This diameter bit was used down to 10,976 feet also, beating the previous world's record with a comfortable margin.



The world's record for depth today stands at 12,786 feet. Yet, when The Texas Company had 11,769 feet of three-inch drill pipe on hand, all in good condition, it ordered an additional 2500 feet. Last week the well was reamed and conditioned the hole down to 11,769 feet preparatory to adding on the new drill pipe.

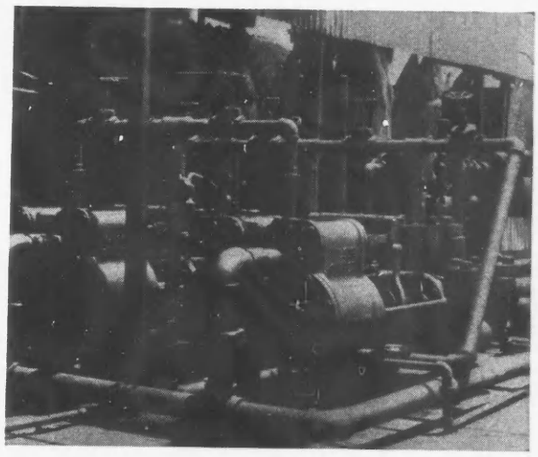
Several things, including primarily the extreme caution used with the test thus far, indicate the well is destined to go much deeper than the present depth of approximately 12,000 feet. Not the least of these is acquisition of the services of S. Rhodes, the contractor who drilled The Texas Company's first really deep test, an 8500-foot project. Another important indication is the use of 6⅝-hole below the shoe of the 7⅝-inch casing.

Other important data on the well include 17⅝-inch casing at 59 feet; 13⅜-inch at 1496 feet; well spudded September 4, 1936; an unconfirmed report of 30 feet of sand at 10,976 feet; temperature at 11,769 feet, 180 degrees.

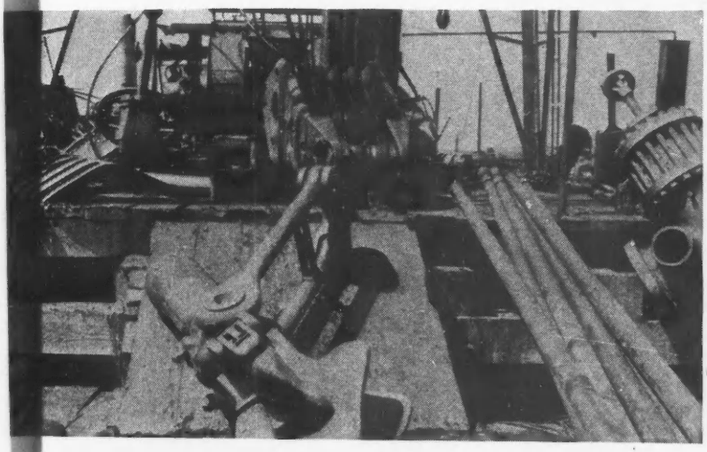


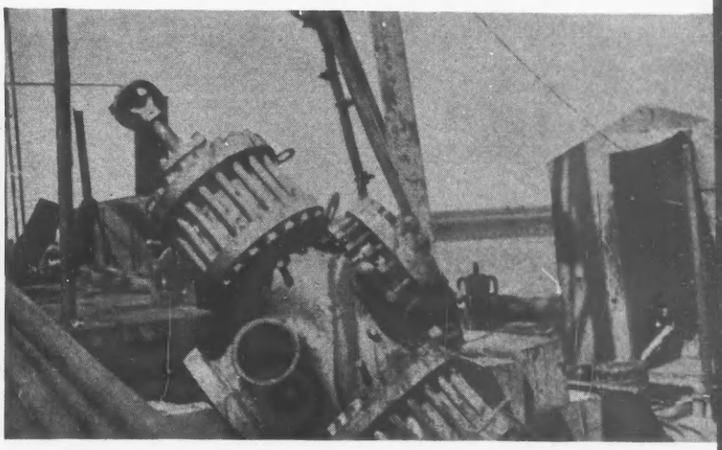
Rounding a final bend on Horseshoe Bayou, top left, the visitor gets a first glimpse of The Texas Company's isolated wildcat. At right, when preparing to dock "Miss Helen", a good view of the upper part of the matting and derrick foundation is afforded. At left, the visitor is met by members of the crew, comprised, from left to right, of: Philibert Lacombe and Donet Semear, helpers; E. O. Robinson, derrick man; C. C. Burlelgh, driller; G.L. Gould, fireman, and W. T. Downes, supply salesman. At bottom are two floating camps housing the three crews. One contains the dining room, and the main constituent of that delightful Creole gumbo frolics and feeds innocently in the bayou water a few feet below the boiling pot waiting to receive him.

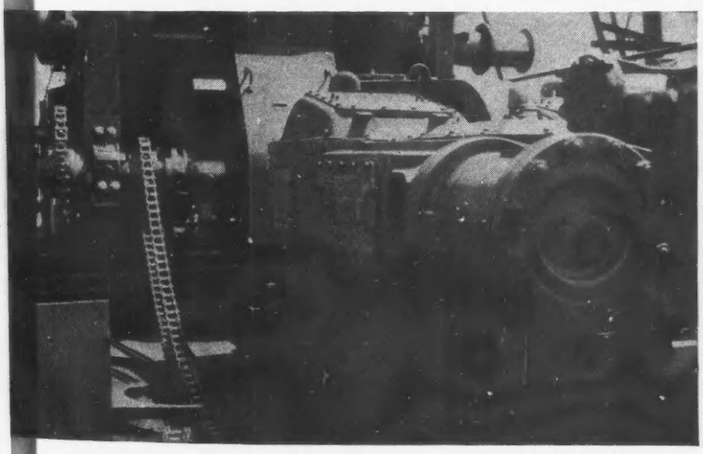
You can't get an official of The Texas Company to tell you Horseshoe Bayou 1 is going to establish a world's record for depth — BUT — the first thing seen when stepping on the derrick floor is that every piece of equipment on the floor is being thoroughly overhauled—on the job. Then you spot 10,000 feet of 3-inch drill pipe stacked in

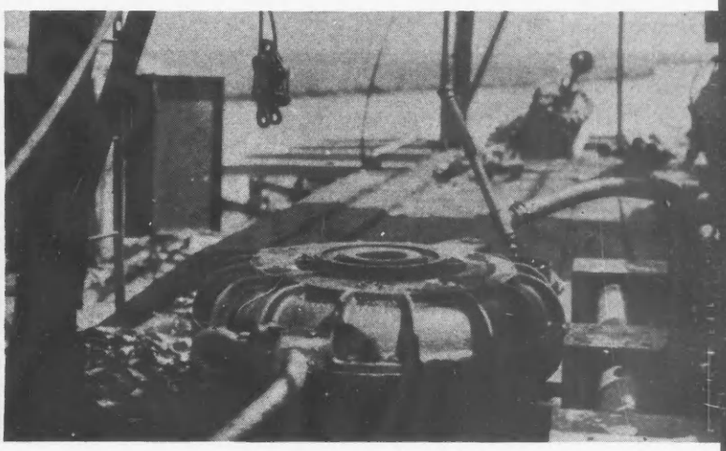


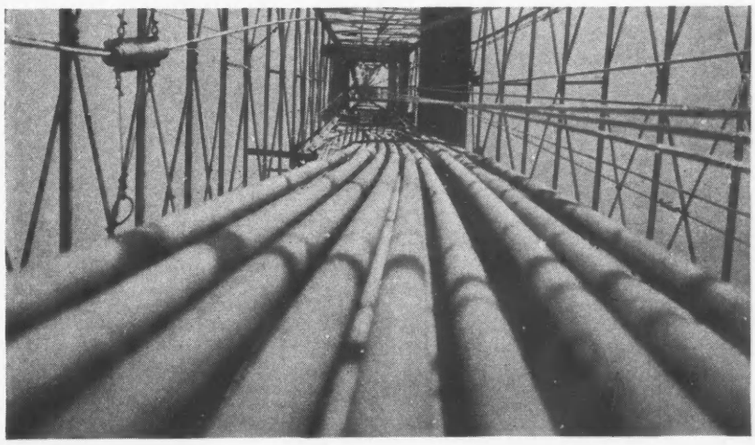
fourbles in the derrick, with another 1769 feet racked off to one side, all out of the hole and all is in good shape. As to the company's intentions — shortly thereafter a worried member of the crew wonders out loud "when that recently ordered 2500 feet of additional drill stem will arive", and then gulps, realizing the cat is out of the bag.











World's Deepest Well Flows at 11,630 Feet

By CHARLES B. LEYENDECKER, Staff Writer

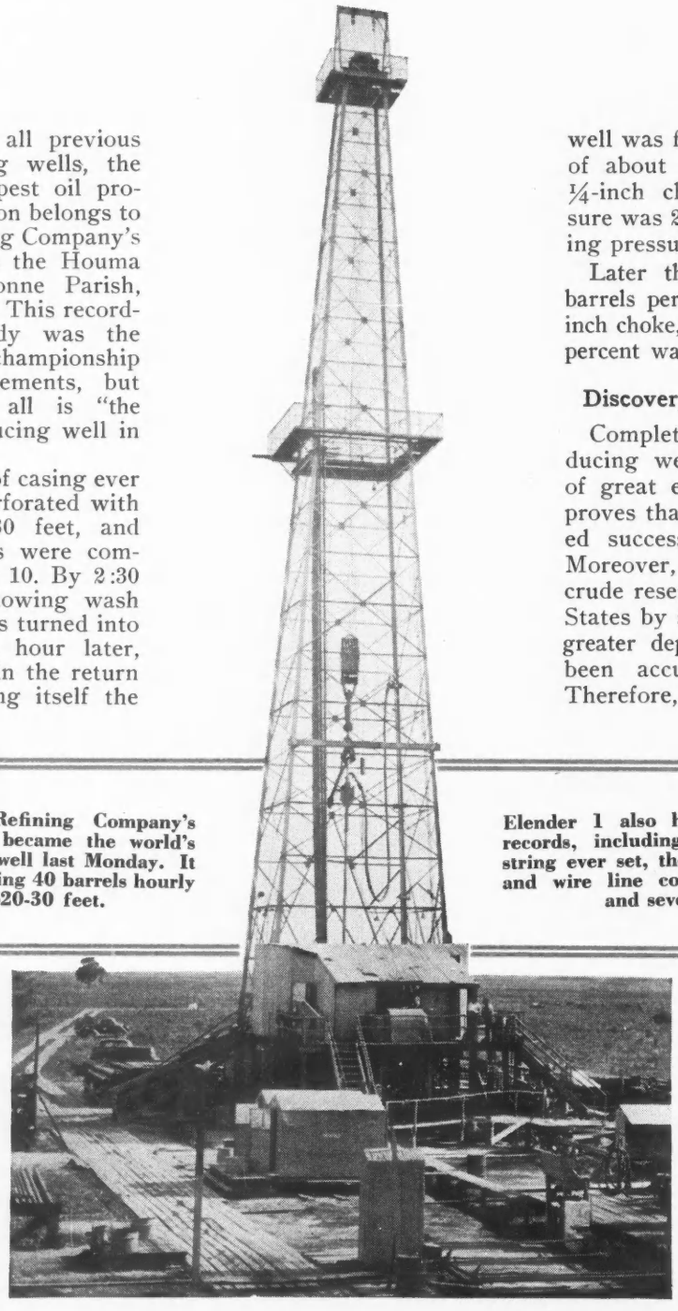
BY far exceeding all previous depths for producing wells, the title of "world's deepest oil producer" without question belongs to Humble Oil & Refining Company's Elender 1, located in the Houma gas field of Terrebonne Parish, Louisiana Gulf Coast. This record-breaking well already was the holder of several championship deep drilling achievements, but overshadowing them all is "the first 11,000-foot producing well in the world."

The longest string of casing ever run in a well was perforated with 11 shots at 11,620-30 feet, and washing-in operations were commenced at noon May 10. By 2:30 p.m. the well was flowing wash water and mud. It was turned into the burning pits an hour later, when oil showed up in the return column. After cleaning itself the well was flowing 40 barrels hourly of about 39 gravity oil through ¼-inch choke. The tubing pressure was 2700 pounds, and the casing pressure 3400 pounds.

Later the well increased to 60 barrels per hour through a quarter-inch choke, of which from two to 17 percent was slightly brackish water.

Discovery of Great Importance

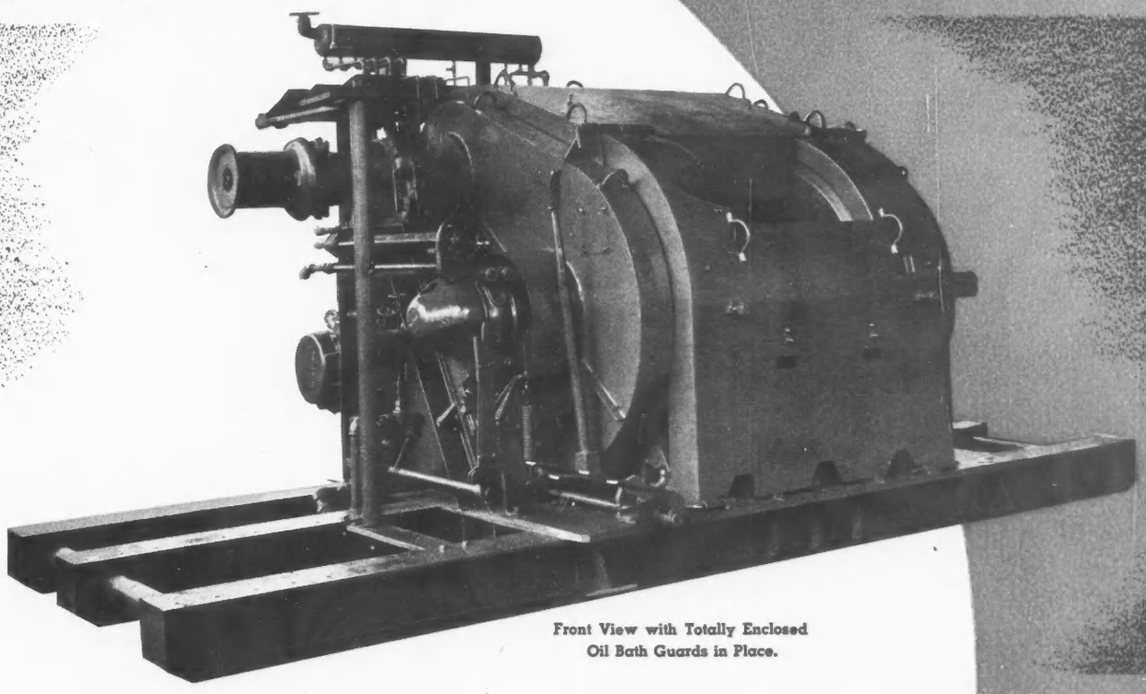
Completion of a commercial producing well below 11,000 feet is of great economic importance. It proves that wells may be completed successfully at these depths. Moreover, it greatly enhances the crude reserve status of the United States by showing oil is carried at greater depths than whence it has been accustomed to producing. Therefore, it is likely that far more



Humble Oil & Refining Company's Elender 1, which became the world's deepest producing well last Monday. It was completed flowing 40 barrels hourly from 11,620-30 feet.

Elender 1 also holds several drilling records, including the longest casing string ever set, the deepest perforating and wire line coring job performed, and several others.

EMSCO

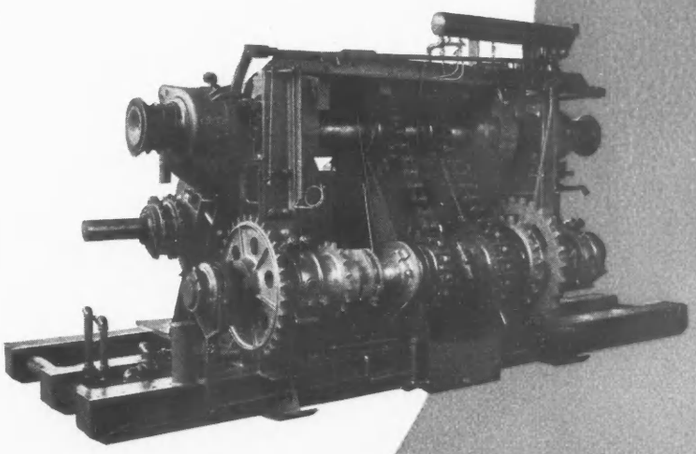


Front View with Totally Enclosed Oil Bath Guards in Place.

TYPE UBLS-54 DRAWWORKS

Equipped with Emsco's patented non-bursting, press-forged, steel brake rims, the UBLS-54 Drawworks features type CB Brake and Equalizer. This design of brake insures increased braking action with high multiplicity of leverage, perfect feed-off, simple adjustment, plus maximum safety and ease of control.

Furnished with machine cut sprockets, totally enclosed, oil-tight guards, and a pump type Cascade oiling system—all these features make it possible to attain maximum depth with speed and economy.



Rear View with Outer Section of Guards Removed.

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10,000-Foot and Deeper Producing Wells in the World

WELL	Location	Depth	Initial Production	Date	REMARKS
Denver Producing & Refining Co's., A-Dah-Noe 1	Caddo County, Okla.	10,100*	50 Barrels on gas lift	July, 1934	First 10,000-foot producer, but not considered commercial.
The Texas Co's., Rigolets 5	Lafitte field, La. Coast	10,110	1636 Barrels choked	Jan. 7, 1937	First 10,000-foot flowing well.
The Texas Co's., Milling 1	Lafitte field, La. Coast	10,022	1476 Barrels choked	Jan. 13, 1937	Second 10,000-foot flowing well
Tide Water Associated Oil Co's., McGonigle 12.	Ventura Ave., Calif.	10,569	533 Barrels choked	Jan. 17, 1937	World's deepest producer at the time and still second deepest.
Harrison & Abercrombie's, Bernard River Land 3	Old Ocean, Texas Coast	10,293	300 Barrels choked	March 5, 1937	Deepest in Texas, third in world.
The Texas Co's., Lafitte 6	Lafitte field, La. Coast	10,018	1050 Barrels choked	May 6, 1937	Third Lafitte 10,000-foot well.
Humble Oil & Refining Co's., Elender 1	Houma, La. Gulf Coast	11,630	950 Barrels choked	May 10, 1937	First and only 11,000-foot producer in the world.

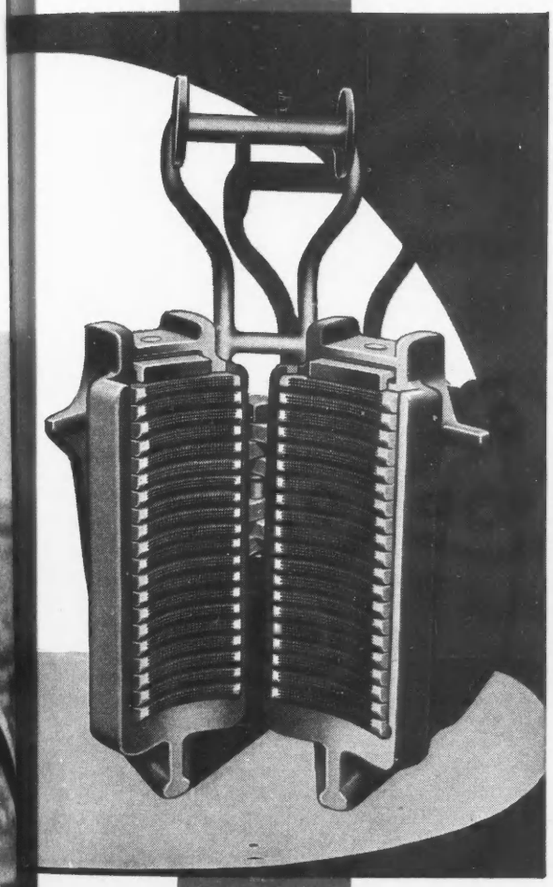
oil will be discovered by future drilling operations than heretofore anticipated, or, at least, that estimates of future discovery possibilities must be revised upward. Furthermore, it definitely bears out earlier predictions that a new era in petroleum production is the likely outcome of widespread superdeep drilling (The Oil Weekly, June 18, 1934, and subsequent issues).

Round-and-around went the world's longest string of 4½-inch drill pipe, as Humble Oil & Refining Company's Elender 1 reached 12,165 feet.

There can be no doubt now that such operations will open vast new crude reserves. Many areas carry production at deeper depths than whence they are producing today, as did Houma, and in some localities the drill has not reached the

MARRED or CRUSHED Drill Stem

COSTS HUNDREDS OF THOUSANDS OF DOLLARS YEARLY IN FISHING JOBS



MISSION SLIPS *Do Not*

MAR OR CRUSH PIPE

Because

The Unique MISSION principle of

ROLLING DOGS

positively eliminates danger of slips cutting or crushing pipe.

•

COSTLY TRIPS TO SHOP SAVED

Old slips are put on par with new slips right on the derrick floor simply by installing new dogs and other worn parts.

•

MISSION SLIPS ARE PREVENTING EXPENSIVE FISHING JOBS

THE WORLD OVER

MISSION MANUFACTURING CO.

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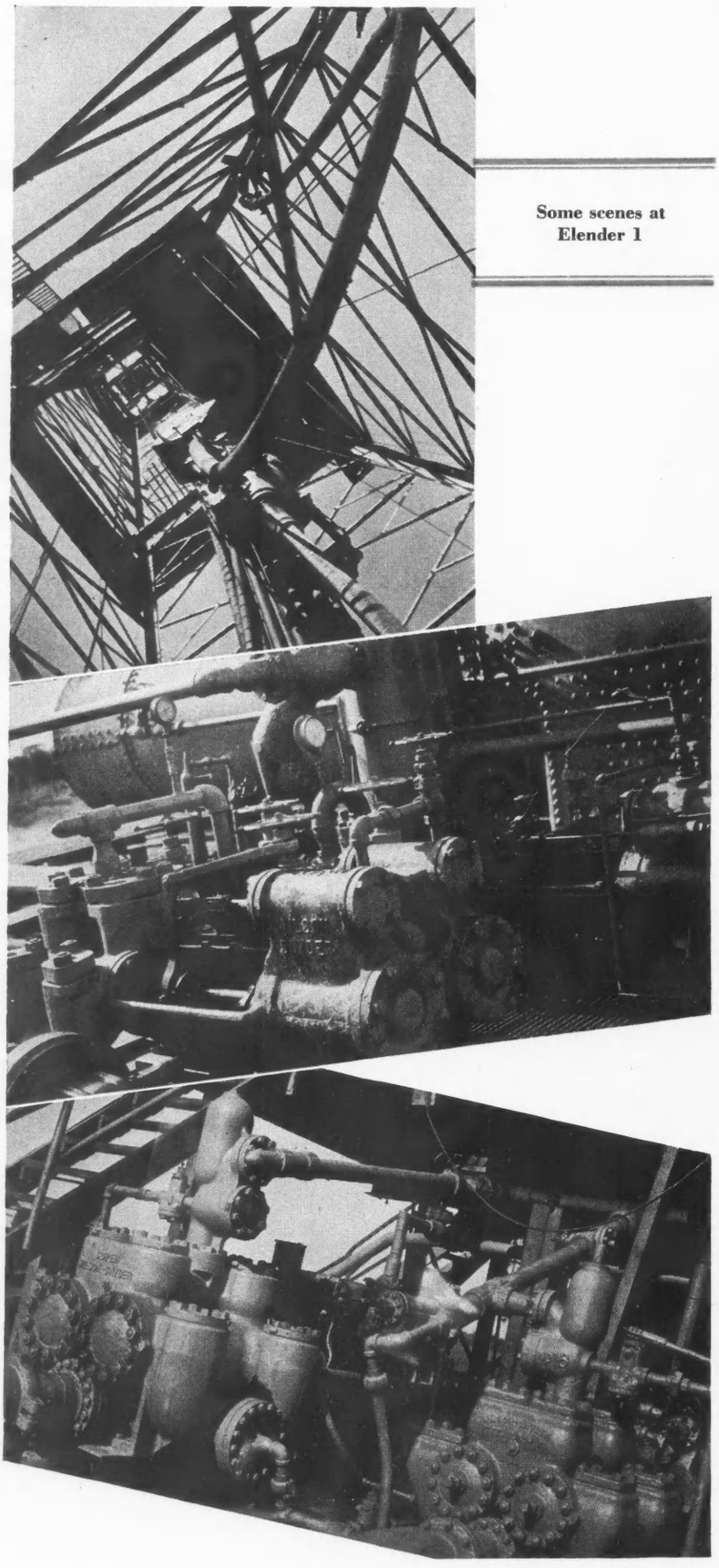
Sold through Supply Stores everywhere



Some scenes at Elender 1

uppermost producing horizon as yet. Those formations lying 12,000 feet below the surface are now opened for exploitation, and wells encountering production in such zones may be completed with success.

Another economic angle to completion of wells below 10,000 feet is that past history of the industry shows that with increased depths, the fields discovered are of greater magnitude. Generally speaking, the deeper sands are more prolific and produce oil of higher quality. For example, the Gulf Coast used to be considered a producer of low gravity crude, but, with the completion of wells at lower depths in recent years, it has become a high gravity oil producing area. This is very important, as the higher the quality of the oil, the lighter it is, and this characteristic permits it to flow more freely. Consequently, a greater percentage of the original reservoir content will be brought to the surface, and that amount produced, likewise, makes more gallons of gasoline per barrel.

Considerable difficulty has been experienced by operators in testing and completing wells below 10,000 feet, and the success of Humble Oil & Refining Company adds materially to the value and importance of the new record holder. It is possible that stepping stones for further advancement in deep production mechanics and engineering methods have been laid by Ellender 1. It is known that the technique of shooting deep casing strings has been improved, because of the troubles encountered in the first attempt to perforate at 12,014 feet in the Humble well, and the subsequent success after minor changes in the gun perforator. This work is discussed later in this article.

Previous Deep Producing Records

Prior to completion of Humble Oil & Refining Company's Elender 1 at 11,620-30 feet, the world's deepest producing well was Tide Water Associated Oil Company's McGonigle 12, in the Ventura Avenue field of California, which is producing from 10,569 feet. This well was completed in January of this year. The third deepest producing well in the world is Harrison & Abercrombie's Bernard River Land Company 3, at Old Ocean, Brazoria County, Texas Gulf Coast, which is yielding high gravity oil from 10,293 feet. The

S-T-R-E-T-C-H was the big problem on this motor-driven jack shaft drive operating a bandwheel power pumping 35 wells of the Ryder-Scott Company, producers of Pennsylvania grade crude oil. One heavy duty belt after another stretched beyond means of take-up under the high tension, and failed in from four to *a maximum of eight months.*

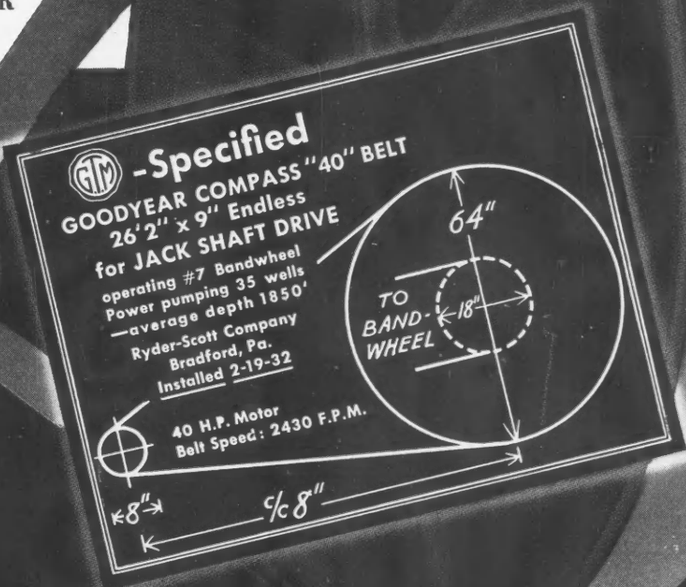
THEN THE G.T.M.—Goodyear Technical Man—was called in. After a thorough analysis by this practical belting authority, a Goodyear COMPASS "40" Endless Cord Belt 26' 2" x 9", costing $41, was applied on February 19, 1932.

Over 5 years without repair

TODAY, 63 MONTHS LATER—approximately eight times longer than any other belt lasted on this drive—the Goodyear COMPASS is still functioning perfectly and looks good for many months more. *It has never caused a single shut-down for repairs,* paying for itself many times over in elimination of maintenance expense alone—to say nothing of the saving in replacements!

THAT IS WHY this producer has now equipped every possible drive with Goodyear COMPASS Cord Belts—*they save trouble and money!* Let the G.T.M. give you full data on field-proved Goodyear Hose and Belting for the petroleum industry. Just write Goodyear, Akron, Ohio, or Los Angeles, California—OR THE NEAREST GOODYEAR MECHANICAL RUBBER GOODS DISTRIBUTOR.

8 TIMES LONGER SERVICE on JACK SHAFT DRIVE!



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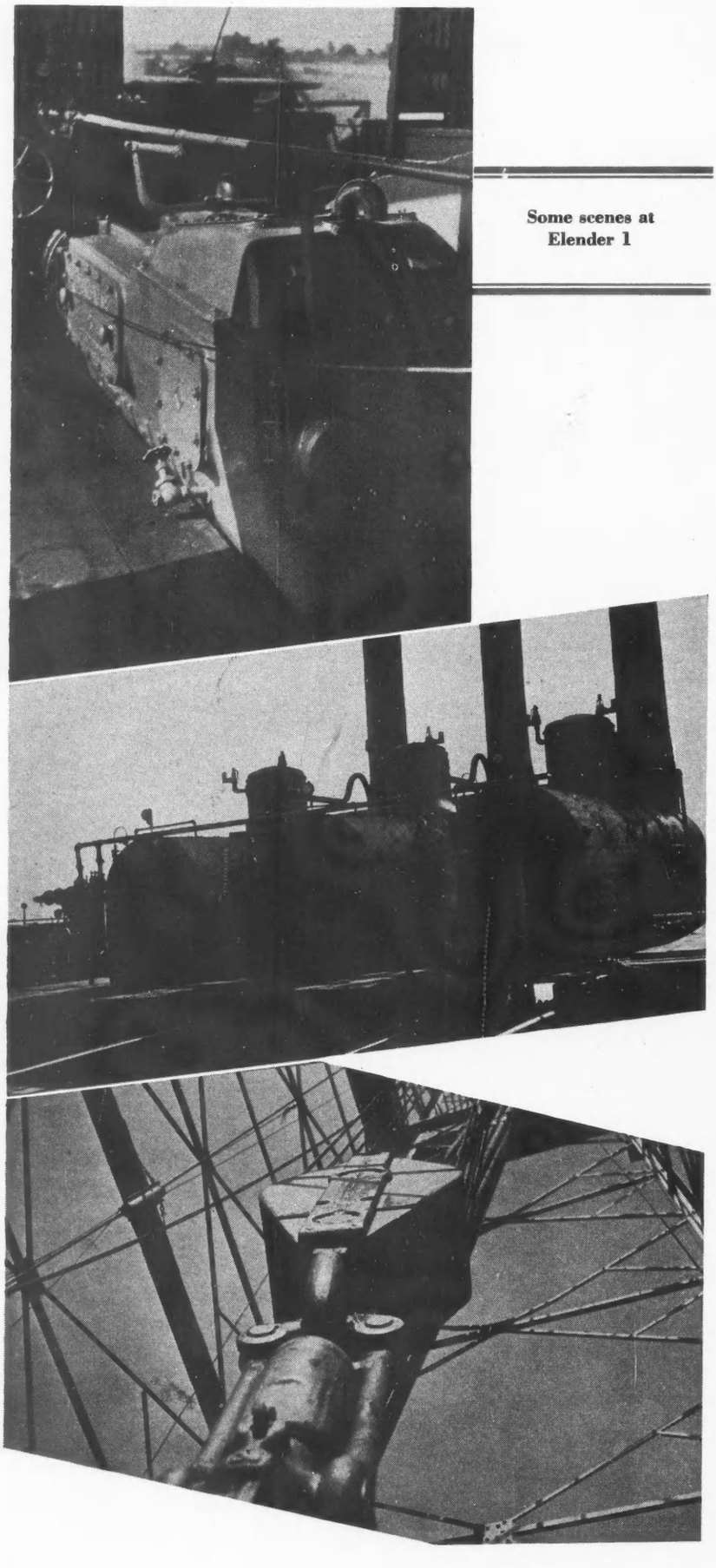
PACKING
Made by the makers of Goodyear Tires

THE GREATEST NAME IN RUBBER

GOODYEAR



Some scenes at Elender 1

Lafitte field of Jefferson Parish, Louisiana, has three producing wells bottomed slightly below 10,000 feet.

The first well to produce below 10,000 feet was Denver Producing & Refining Company's A-Dah-Noe 1, in Caddo County, Oklahoma, which made 50 barrels on gas-lift just below 10,000 feet. However, it was not considered commercial, and one of the Lafitte field wells is generally recognized as the first 10,000-foot commercial producer in the world.

Elender 1 is the seventh well in the world to produce oil below 10,000 feet, although a large number have encountered showings, several of which have been sufficient enough to warrant testing.

Drilling Records of Elender 1

Even before gaining the title of the world's deepest producing well, Elender 1 was the holder of several drilling records.

The first record established by Elender 1 was the setting of the longest string of 9⅝-inch casing. This was landed at 8735 feet. The second was chalked up when the longest string of any size casing was run. This was 7-inch pipe cemented at 12,097 feet. A third record was that attained by drilling to 12,165 feet with 4½-inch drill pipe. Heretofore, because of earlier pipe setting depths, it has been necessary to use smaller drill pipe on all wells that have penetrated beyond 12,000 feet. Still a fourth world record was established when casing was perforated below 12,000 feet.

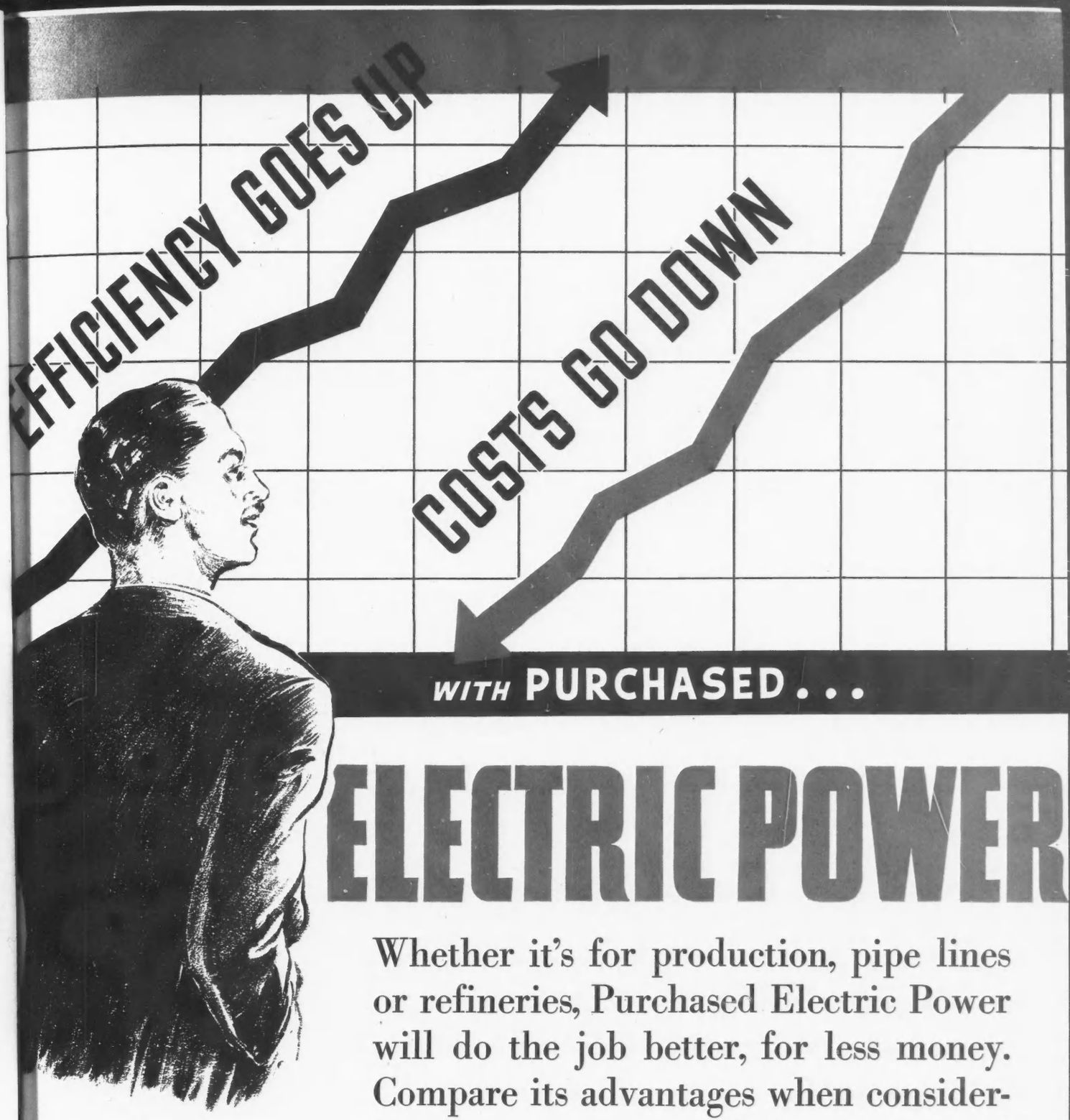
A fifth record established was that of taking the deepest wire line core ever taken. Of course, the sixth record for the well was made when it became a producer.

Elender 1 is the second deepest well in the Louisiana Gulf Coast, the third deepest in the world, and the fourth test in the world to ever reach 12,000 feet.

Drilling History

Elender 1 was spudded September 19, 1936. A string of 26-inch casing was cemented as surface pipe at 38 feet. At 260 feet a string of 20-inch casing was cemented. The 13⅜-inch pipe string was landed at 2824 feet. After setting the 13⅜-inch casing, a 12¼-inch hole was carried to 8735 feet, where 9⅝-inch casing was cemented to establish its first world's record.

Before setting the string of 9⅝-



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PROFIT BY USING Purchased ELECTRIC POWER

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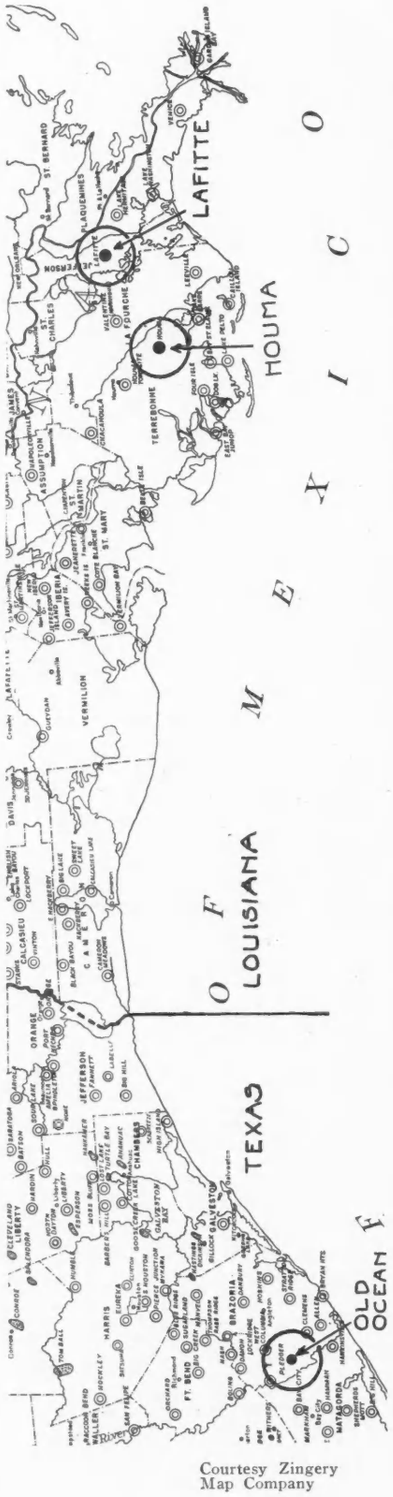
inch pipe in Elender 1, the longest string of that size casing ever set was in Kettleman North Dome Association's 56-8-Q, at Kettleman Hills, California. This string was cemented at 8304 feet in the latter well. Several other wells that have gone below 10,000 feet have set 9⅝-inch casing below 8000 feet, but not quite so deep as Elender 1. The Texas Company's K. C. L. C-11-49, Kern County, California, set a string at 8069 feet. The Texas Company ran a 9⅝-inch pipe string to 8063 feet in its State Lake Barre 37, Louisiana Gulf Coast.

After landing the 9⅝-inch casing, Humble Oil & Refining Company reduced the size of the hole to 8⅝-inches, and carried Elender 1 to 12,165 feet. At this point drilling was suspended, and 7-inch casing was cemented at 12,097 feet to permit testing of several showings. This 7-inch string is the longest ever run. The previous record holder was Continental Oil Company's Hebert 1, at Abbeville in the Louisiana Gulf Coast, which set 5-inch pipe at 11,795 feet. Consequently, Elender 1 has run and cemented the first 12,000-foot string of casing.



Courtesy Zingery Map Company

Circles on the map indicate the location of 10,000-foot producing wells in the Texas-Louisiana Gulf Coast area. The Lafitte field has three wells yielding oil at this depth.

Testing Operations

After landing the record length string of casing, it was the intention of the company to perforate it with 12 shots at 12,014 feet. This was the first time an attempt had ever been made to shoot so deep. Apparently, due to the heavy pressure existing, the instrument failed to discharge but one of the shots. However, the well showed a shut-in pressure of 250 pounds with only one perforation, and it was necessary to close the blowout preventer to prevent mud kicking out of the hole. The gun perforator was reworked so as to give it greater energy before attempting to shoot the well again, and in the meantime another blowout preventer was installed, as was a bottom-hole valve. When run the second time the gun perforator exploded 10 of the 12 shots. The well made salt water, and it was decided to plug back and test other showings, the first of which proved productive at 11,620-30 feet.

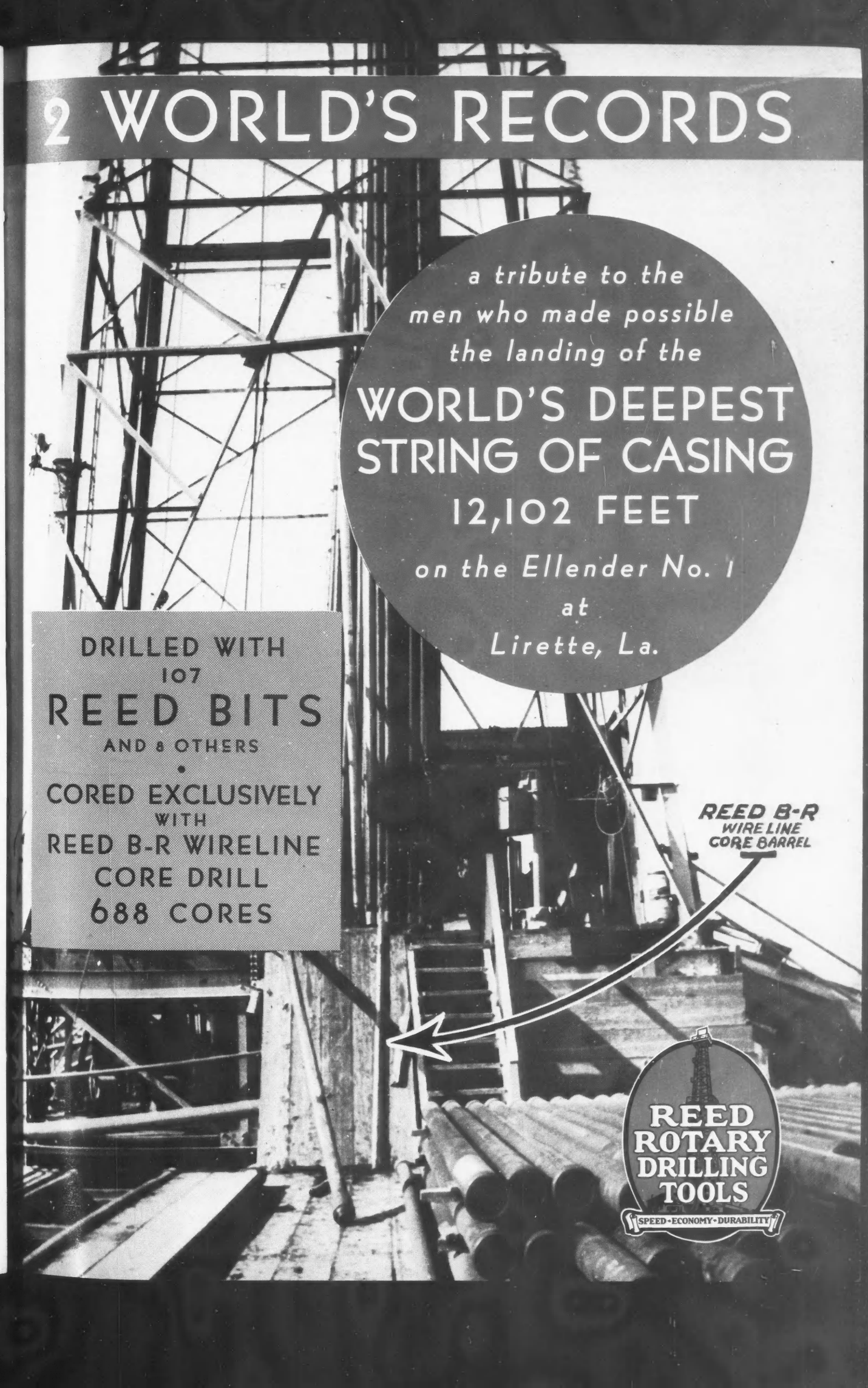
The experience of the company in perforating casing at this depth is considered very valuable. The previous deepest gun perforating job in the world was accomplished in Roumania, when Credit Minier, S. A. R., shot its Chitorani 1, near Ploesti, at 10,727 to 11,021 feet. In the United States, the deepest previous well ever perforated was at Kettleman Hills, California, where a depth of 10,747 feet was reached.

Heavy-duty equipment has been used in drilling the test, including a 136-foot steel derrick, a 27-inch rotary table, 14 x 14 steam engine, heavy swivel, three 125-horsepower boilers, 7 x 4½ x 10 and 10 x 6 x 12 feed water pumps, a 15 x 7 x 20 and a 12 x 6 x 16 slush pumps, and a special 125-ton elevator.

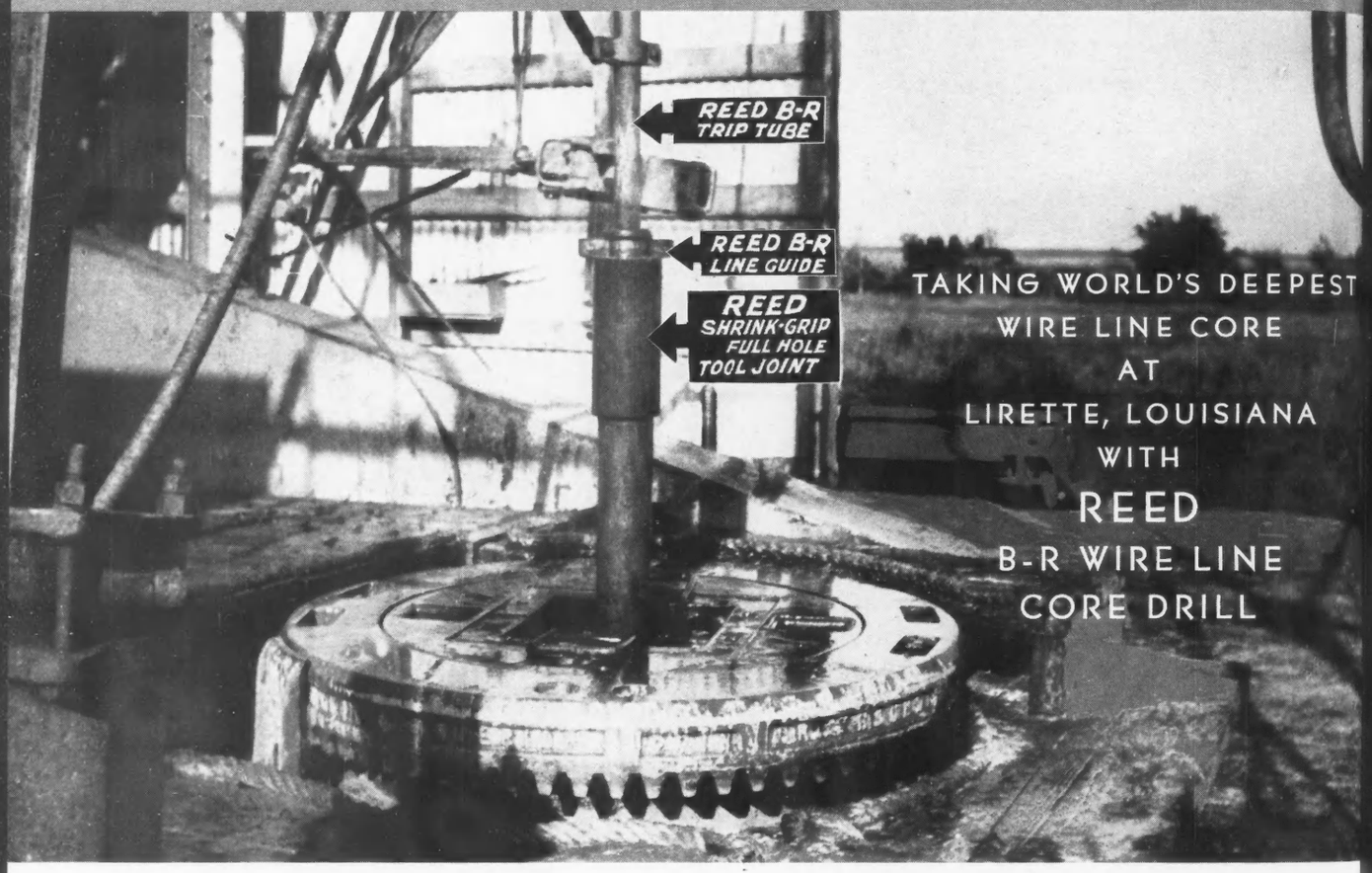
Five of the seven 10,000-foot producing wells in the world are located in the district shown on the map. One of the others is in Oklahoma, and the other in California.

Houma gas field was made known by gas seeps and other surface indications, and was proven by small gas wells in 1923. There have been around 30 wells drilled in the area. There is no record of the amount of gas that has been produced at Houma, but it is estimated to be over 1,000,000,000 cubic feet. The field has produced enough to supply the town of Houma, and enough for several industrial consumers. The field was producing from Pliocene formation and about 400 acres were productive for gas. The field has been depleted of gas, and only a number of old gas connections can still be seen. Humble Oil & Refining Company leased the acreage in the area, half from Adams-Royalty Company in 1935, and the other half of the 3000-acre block was taken on commercial leases. Most of Humble acreage lies on the east side of the field.

Discovery of deep production on this old structure certainly indicates the possibilities of such occurrences in many other regions.


2 WORLD'S RECORDS
a tribute to the
men who made possible
the landing of the
WORLD'S DEEPEST
STRING OF CASING
12,102 FEET
on the Ellender No. 1
at
Lirette, La.
DRILLED WITH
107
REED BITS
AND 8 OTHERS
•
CORED EXCLUSIVELY
WITH
REED B-R WIRELINE
CORE DRILL
688 CORES
REED B-R
WIRE LINE
CORE BARREL
REED
ROTARY
DRILLING
TOOLS
SPEED • ECONOMY • DURABILITY

2 WORLD'S RECORDS


REED B-R TRIP TUBE
REED B-R LINE GUIDE
REED SHRINK-GRIP FULL HOLE TOOL JOINT
TAKING WORLD'S DEEPEST WIRE LINE CORE AT LIRETTE, LOUISIANA WITH REED B-R WIRE LINE CORE DRILL

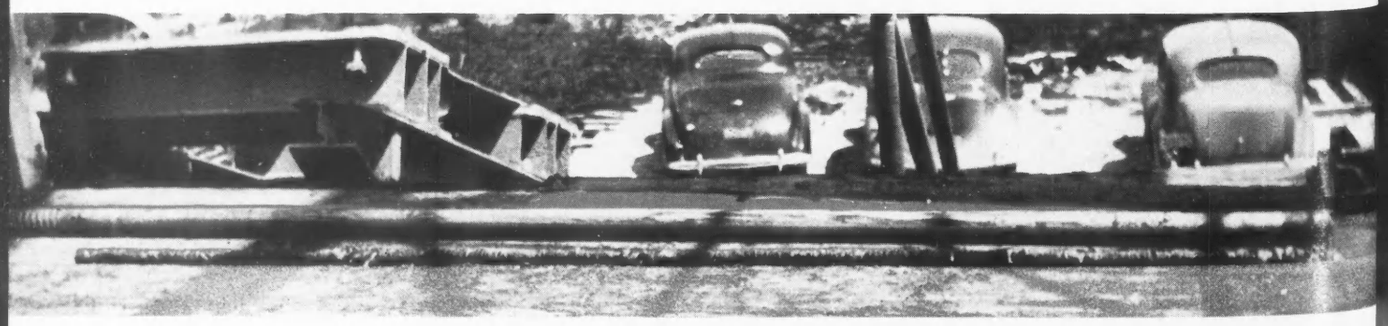
WORLD'S DEEPEST WIRE LINE CORE

12,160′ to 12,168′ . 100% Recovery with the REED B-R Wire Line Drilling and Coring Bit

Reed B-R Type D Wire Line Core Drill was used thru 4½" 16.60-lb. drill pipe and full hole tool joints, to core this deep well and recover 688 cores. Coring started at 400 feet, finished at 12,168 feet. Average time per core 1 hour, 45 minutes.

Drilling Bits used to drill this deep well:

71 Reed B-R 2-way and 3-way welded-in blade bits.
7 Reed B-R Roller Bits.
29 Reed W-I-B (welded-in-blade) Bits.
8 Others.



CORE TAKEN FROM 11,424 to 11,434 FEET
with Reed B-R Wire Line Core Drill—10 feet cut—10 feet recovered.

LONGEST STRING OF CASING SET

7-inch, 28-pound set at 12,102 feet

DEEPEST WIRE LINE CORE TAKEN AT

12,168 feet with 100% Recovery

to right:

R. J. FRANCE, Driller
R. E. COCHRUM, Derrick Man
FRANK HARDY, Helper
J. W. RAWLINSON, Fireman
E. J. BARBIER, Helper

Left to right:

F. O. McCARTY, Driller
W. A. WAITS, Derrick Man
MORRIS BRUMETT, Helper
R. H. McCLENDON, Fireman
F. D. RICHARDSON, Helper

(Photograph also shows last B-R Roller Bit used)

to right:

W. W. SILLS, Derrick Man
E. T. MACE, Driller
R. A. REED, Helper
CHAS. GRANTON, Fireman
L. H. HEBERT, Helper

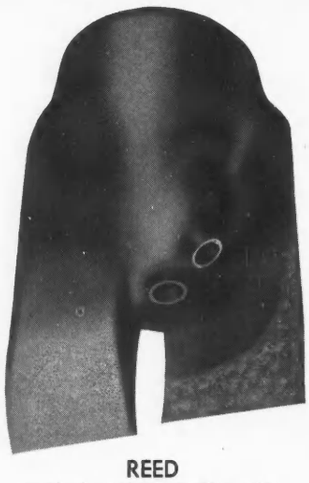
Left to right:

W. W. SILLS, Helper
E. McCLESKEY, Fireman
JACK RONWINE, Driller
F. E. KAY, Helper
E. J. BUTAND, Derrick Man

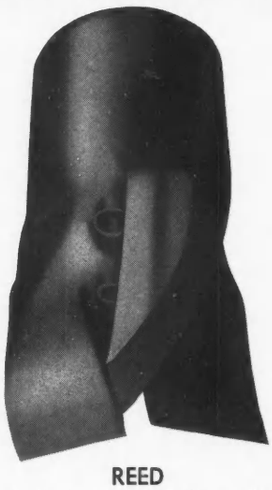
THE FOUR SELECTED DRILLING CREWS
on this
WORLD RECORD JOB

AT 12,168 FEET WITH REED B-R ROLLER BITS

REED
3 Blade Drilling Bit and Drill Collar
with Core Barrel in position



REED
2 Blade W-I-B Drilling Bit



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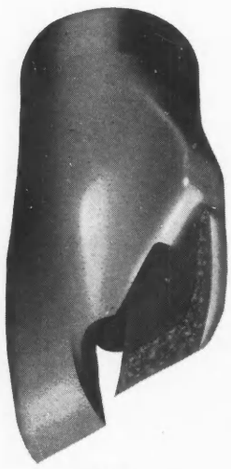
3 Blade W-I-B Drilling Bit



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2 Blade B-R Bit

REED
B-R Roller Bit

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REED B-R WIRE LINE

AND

REED WELDED-IN BLADE DRILLING BITS

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The Future of Well Spacing

By D. R. KNOWLTON,
General Production Superintendent,
Phillips Petroleum Company

THIS article, which was presented before the Mid-Continent Section of the American Institute of Mining and Metallurgical Engineers' annual meeting in Tulsa, May 3, 1937, is accompanied by a discussion by George S. Bays, consulting engineer, Stanolind Oil & Gas Company, Tulsa.

IN the early days of the oil industry spacing patterns, well densities, and unnecessary wells were terms unknown to the petroleum world. At first, wells were drilled as close to the property lines as the owners desired, for little thought was given to the migratory nature of the oil and gas within the reservoir. At least it was never imagined that migration could possibly extend to the far limits which are known to exist.

Probably the first indication of well spacing regulations was evidenced in the offset requirements or understanding between operators as to the distance from each other's property lines. This was probably the first step of one landowner in portecting his property from drainage by his neighbor. The land surveying system designated these offset requirements by geographical boundaries on the surface rather than any underground reservoir conditions or geological considerations. The consessions in these early agreements among operators naturally found their way into the first laws on oil and gas leasing.

In fact, these laws based on surface development on geographical lines have become so firmly rooted in the basic laws of our federal and state government that it will take a major operation to remove these roots and plant in their place suitable laws that recognize reservoir conditions and reservoir performance as we know them today.

Until such changes in the leasing laws are made to recognize the known existing reservoir conditions, the industry must be burdened with antiquated laws that are wholly unsuited to the present needs. Geometrical patterns that call for staggered spacing between property lines are impossible to accomplish under the present laws. Spacing adapted to structural conditions is prohibited because we must conform to a surface, geographical pattern that was adopted when little was known of underground conditions and practically nothing of reservoir performance of oil and gas energy.

This is one of the many examples that might be cited of the inadequacy of the present laws of oil and gas to meet the progress that has been made in the science of oil production.

It is natural that laws will lag in meeting progress in any industry. This is not the fault of our legislators but it lies within the industry itself to bear the burden of creating new laws to correct this condition.

Law of Capture

Another example of an obsolute law is our present "Law of Capture" that is so well established in many of our statutes. This law is contrary to the best interest of our industry for it not only prohibits the most efficient use of reservoir energy, which in turn reduces the ultimate recovery from a common source of supply, but encourages rapid development of a pool and unnecessary well densities.

The operator strives to keep pace with his neighbor in capturing that elusive liquid before it is drained from his land. The results are underground waste, economic waste, and instability in the industry.

Acreage Factor

It is not desired to give the impression that the industry has made no progress in removing the shackles of precedent imposed on it by these early laws. Each inch gained, however, has been a "battle royal" and many reverses mark the path of this endeavor.

Most oil states have incorporated some recent spacing regulations in their statutes or at least the right to allocate oil on an acreage basis. In most cases this was their first departure from the old "Law of Capture" and was the initial attempt to partially allocate oil in place.

Some states have gone farther than others in this respect. It is interesting to observe the results obtained in the several states due to these differences in spacing laws. New Mexico is one of the newer oil states and has a comparatively recent statute on oil and gas. Many authorities consider this the most constructive statute in oil and gas legislation. It is the one statute which definitely divorces the old "Law of Capture" and adopts the law of "Oil in Place." It has a liberal spacing law which has encouraged the operators to adopt appropriate well densities. The results speak for themselves. During the years 1934, 1935, and 1936 in southeastern New Mexico 317,000,000 barrels of reserves were developed with only 820

wells, while in West Texas some 288,000,000 barrels of reserves were developed with 2346 wells, or practically the same amount of reserves developed with one third the number of wells and one third the development cost. These two areas are very similar in many respects and offer an excellent comparison. The development in New Mexico has been more orderly than in other states where it has been necessary for the operators to resort to mutual spacing agreements which frequently cause innumerable difficulties.

Unnecessary Wells

Unnecessary wells might be defined as those wells in a pool that are not needed to efficiently and economically drain that pool. It should be understood that the term "unnecessary wells" does not refer to "wildcat" wells or wells opening up new reserves, but only to wells drilled in proven areas. The choice of a proper well spacing pattern for any given source of supply is naturally a difficult task, for many factors enter into the problem. The actual characteristics of the reservoir as to porosities, permeabilities, and sand thickness may be very meager in the early stages of the pool's development. The effective reservoir energy of that pool may be a questionable factor. Even though these scientific data may be known there is still the question of the obligation of the operator, who on the one hand has a duty to society to obtain the greatest ultimate recovery, and on the other hand has a duty to the stockholders of his company, or to himself as an individual to make the greatest return on his investment. I believe that laws in most states recognize a middle ground on this question whereby an operator should be expected to have adequate well densities for efficient drainage and yet should expect a reasonable economic return on his investment.

In most of the oil states the laws have not digressed sufficiently from the old "Law of Capture" to eliminate much of the unnecessary and excessive drilling that now exists. Much of the close spacing has not taken place because the operators on the whole believe that the larger the number of wells which are drilled in a field, the greater will be the ultimate recovery from such field. In a great many instances this excessive and unnecessary drilling has occurred in proven fields where the proration or allocation formula in those areas is founded on a per-well basis or on some combination of factors which gives excessive weight to the well and which gives too small a value to acreage or recoverable reserves. Under the per-well method of allocation where proration exists, an operator is prohibited from drilling on a larger tract than his neighbor or to a less dense pattern because of the regional drainage that will take place and remove oil from under his tract and be produced by the areas that are more densely drilled.

There is a vast difference in the principle of close spacing in order to get a high allowable on a per-well basis of proration compared to a close spacing in order to increase the ultimate production from the pool as a whole. This has often been confused and many of the arguments in favor of close spacing for greater ultimate recovery are in reality a subterfuge to permit the drainage of offset properties. Until laws in the various states have been enacted which will recognize a liberal acreage factor and "Oil in Place" rather than the "Law of Capture," a premium will be placed on well potentials and well allowables and conservation and equity will be neglected. The distribution of allowables on a per-well basis results in condensed drilling and withdrawals in certain areas of a pool, thus creating low pressure areas in the reservoir which bring about irregular and premature encroachment of water, irregular and premature expansion of the gas cap due to gas coming out of solution from the oil, and the inefficient use of gas energy within the reservoir. Until laws are passed providing operators the rights of allocation and proration plans which will eliminate this spotted condition of drilling, little conservation of oil and gas within the reservoir can be realized. It is not absolutely necessary to insist on uniform spacing within any pool and many plans have been defeated because of the attempt to do this. However, *it is necessary to allocate the allowable oil on an acreage basis in order to reach the ultimate aim of keeping the reservoir in equilibrium.*

In fields where small and irregular shaped tracts exist there are some difficulties which naturally arise. A reasonable way to avoid these difficulties is to permit voluntary pooling or require pooling should no agreement be made. By so doing the small tract owner would obtain a share of the oil while paying only his share of the expense of drilling and operating.

Unit Operation

Unit operation would cure many of our spacing and allocation problems, but is not a "cure-all" as long as we have divided royalty interests within the unit. The various royalty interest still prohibit the breaking down of geographical boundaries in favor of structural boundaries and often results in undesirable well patterns.

The land departments of the oil companies can accomplish a great deal in the direction of bringing about more unitized blocks and voluntary pooling agreements by continuously having this aim in mind. Leases can be obtained in larger blocks and the practice of scattered small tracts should be avoided.

Unitization is definitely a step in the right direction and will eliminate much of the unnecessary drilling and materially reduce both development and lifting costs.

Substitution for Close Spacing

Before the advent of proration when wells were produced to their capacity there was a legitimate excuse for close spacing. This was especially true since all states were operating under the "Law of Capture," and it was the operator who drilled his well to the sand first and had the largest number of wells who made the greatest return on his investment. Little thought at that time was given to the use of reservoir energy in moving the oil to the well bore; consequently, this energy was utilized to the least degree of efficiency.

Under proration we have learned that oil and gas move great distances in the reservoir, and the use of reservoir energy has become appreciated by the engineers. *This use of reservoir energy is in effect a substitute for the drilling of wells and the more it is conserved the fewer wells are necessary.*

The South Burbank pool in Osage County, Oklahoma, offers one of the best examples to illustrate this point. The old Burbank pool was drilled up by 10-acre spacing before proration was in effect. Assuming 20-acre spacing to be adequate, more than 900 unnecessary wells were drilled at an approximate cost of $29,000,000. Recently the South Burbank pool was discovered which has almost identical reservoir conditions. This pool is being drilled up on 20-acre spacing which will save over 200 wells, or an expenditure

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of approximately $5,000,000. By returning the residue gas to the sand in a pressure maintenance program, the indications are to date that considerably more ultimate recovery of oil per acre will be made with half the number of wells. Thus by substituting a comparatively small expenditure for pressure maintenance, $5,000,000 will be saved in development costs. It is also estimated that the reduced lifting cost due to the injection of gas will more than compensate for the cost of pressure maintenance. Many other examples could be used where the more efficient use of reservoir energy has justified the wider spacing of wells. *By the additional application of pressure maintenance methods, wider spacing of wells can be justified in the future with enormous savings in drilling and development costs.*

Cost of Unnecessary Wells

It has been generally conceded by most authorities that the total number of unnecessary wells that have been drilled in the East Texas field may be conservatively placed at 12,500. If we assume that the average cost of drilling these wells is $13,000, then the total unnecessary expense merely for the drilling of unnecessary wells in this field is approximately $162,000,000.

In another analysis a like situation was found in the Oklahoma City field where it was revealed that 404 unnecessary wells were drilled at a cost of $46,600,000.

In a study now being made, the preliminary facts indicate that a conservative estimate of the number of unnecessary wells to be drilled in the United States in 1937 will cost the industry over $100,000,000, This is a staggering amount and is equivalent to approximately one third of the amount of salaries that will be paid to employes in the producing end of the industry. Or it is estimated that this amount will easily pay for all the dry holes, including the wildcat wells, that will be drilled during the year.

Allowables Per Well

The situation in most of the states is that at the present rate of drilling the allowables per well are falling off rapidly. In Texas alone the average allowable per well in 1933 was over 50 barrels while in 1936 it fell to approximately 25 barrels per well. The number of wells in that period was practically doubled. If this orgy of drilling continues, it will be only a matter of a short time before all new wells when completed will receive only a minimum allowable. This serious condition confronts the industry and will result in an extremely long pay-out of capital invested. *The remedy is unquestionably fewer wells and better utilization of reservoir energy as a substitute.*

Conclusion

The one largest obstacle that is keeping the industry from attaining a stable and intelligent program of development is the law in most of our oil producing states. These statutes, being fundamentally based on the "Law of Capture," are essentially contrary to conservation and economic stability. They are based on antiquated methods of production and do not reflect the present scientific understanding of reservoir conditions and reservoir performances.

It is the obligation of the industry to instigate an educational program that will have the effect of obtaining proper legislation, in order (1) that the industry may conserve this natural resource, (2) allocate, as nearly as possible, to each operator his just share of the oil and gas under his property, and (3) make it possible for the operator to recover the largest amount of this resource with the minimum of expense.

Unless these conditions can be realized and properly corrected, then we must certainly expect the continuation of a program where conservation cannot be practiced successfully, where unnecessary economic losses are frequent, and in the end probably result in having the government completely dictate the policies and operations of the industry.

Future of Well Spacing

By GEORGE S. BAYS, Consulting Engineer,
Stanolind Oil & Gas Company

THE accompanying comments are a discussion of D. R. Knowlton's article, "The Future of Well Spacing," which is presented on preceding pages of this issue. Both were presented before the Mid-Continent Section of the American Institute of Mining and Metallurgical Engineers' annual meeting in Tulsa, May 3, 1937.

IN my opinion, Knowlton has reached the correct conclusion (see preceding article in this issue) in that the use of antiquated laws to regulate the application of modern producing methods is responsible for the staggering cost of unnecessary wells. No factual proof has been advanced to support the need for the $162,000,000 worth of unnecessary wells in East Texas, nor has there been any factual proof that these unnecessary wells, under the present East Texas producing methods, will add materially to the ultimate recovery of this mammoth pool. A member of the Texas Railroad Commission, in a recent speech, made the statement that engineers generally estimated East Texas ultimate recovery at a billion and a half to two billion barrels, when there were 8,000 or 10,000 wells in the field. Now, with 22,000 wells, the estimate has been raised to four billion barrels, inferring that the additional wells drilled are responsible for the increased ultimate recovery estimates. A Texas Supreme Court opinion recently opened the way to the

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drilling of 10,000 additional wells. Does anyone believe that an additional 10,000 wells will add an additional two billion barrels to the ultimate recovery?

Should the $162,000,000 expended on unnecessary wells in East Texas have been used for further exploration of the vast plains of West Texas favorable to oil production, it would rave drilled at least 4000 wells. These 4000 wells would have developed 490,000,000 barrels of additional West Texas reserves, using the rate per well pointed out in Knowlton's paper. Using New Mexico's rate on reserves developed per well, these 4000 wells would have added more than a billion and a half barrels of reserves.

The East Texas field was discovered by an independent producer acting without the aid of geology. It is the independent producer who finds the oil in those areas where geology and modern exploration methods find little to encourage exploration. Many independent producers contributed to the $162,000,000 unnecessary well fund for East Texas. Had this money not been spent on unnecessary wells, much of it would undoubtedly have found its way to the further development of the state's unproven oil reserves. No one can say how much the state will lose in the non-development of these reserves through the diversion of income to the forced drilling of unnecessary wells.

Engineering Is Behind

In recent months engineering advancement in industry has been decried for being so far ahead of social progress. Charles F. Kettering, General Motors research director, in the current issue of a scientific publication disagrees. According to Kettering, we think engineering is ahead because it is a lap behind. Oil production engineering is a full lap behind. No quantitative oil recovery values have been determined for the newer methods of production. "More Wells More Oil" had its origin in a Bureau of Mines report on drainage conditions in fields developed when conservation was unknown. Wide open flow was practiced without the use of tubing until the pumping stage. That the methods were wasteful is proven by the fact that within the last few months secondary recovery methods have given indication of additional recovery equal to that obtained by the old methods practiced. There is no reason to believe that the conclusions from these early Bureau of Mines studies were erroneous. Under the production methods practiced at that time undoubtedly more wells did produce more oil per acre. Unlimited production in those days created a frothy gas/oil condition throughout the entire reservoir. The inefficiency of extraction due to such conditions of flow is proven by the amount of recoverable oil left behind, just mentioned. We are told by some East Texas investigators that the oil left in the East Texas reservoir between the original oil/water interface and its present level is comparable to that left behind after the practice of both primary and secondary recovery methods in similar fields under volumetric control. If this be true, it leads to the inevitable conclusion, that in those fields whose depths are such that drilling economics prohibit the practice of secondary recovery methods, the maintenance of pressure by gas injection and extraneous water input is demanded by true conservation.

During the past few months engineers have definitely established the existence of connate water, as occupying an appreciable portion of the oil pore space in all reservoirs. Studies of adhesive, interfacial, and surface tension, in connection with reservoir oil, water, and sand grain characteristics, have placed a quantitative value upon the amount of sea water displacement possible during the oil accumulation period. Instruments have been developed for the measurement of surface and interfacial tension of oil, gas, and water, under their true temperature and pressure reservoir conditions. On the whole, present day oil production research work points to the increasing value of controlled reservoir conditions, and extraction through full utilization of natural energy and energy introduced from external sources. It also indicates a decreasing value for close spacing.

Fluid Flow Established

In a current issue of the leading journal of Physical Science, the simple announcement is made, from the leading production research laboratory of the industry, that within the last year the fundamental physical laws governing the fluid flow through porous media, in which heterogeneous fluids are involved (such as mixtures of gas and liquids), have been established. It is felt by some engineers that the application of the results of the studies made by this laboratory, coupled with an extensive program to obtain factual data from depleted reservoirs, will form the ground work for proof necessary to formulate true conservation laws.

It is up to the engineers of the oil industry to convince the management that the expenditure of large sums necessary to produce factual proof of the efficiency of pressure methods of production is justified. The most efficient producing methods applicable to each type of reservoir, whether sand, lime, salt dome, or shore line, with its accompanying characteristics as to gas cap, water drive, gas in solution, and fluid flow, must be determined. There seems to me no other method of arriving at the facts of efficiency of drainage, than the exploration of depleted reservoirs to determine the amount of oil left behind. When this is done, and when all doubt is removed as to the procedure necessary to obtain the most oil, it will behoove the various states to pass the necessary laws in order to administer and control their individual resources. True conservation is so interlocked with police power, and the welfare of the public, that the individual oil producing states cannot afford to do else but pass whatever laws are necessary to conserve and control their natural resources.

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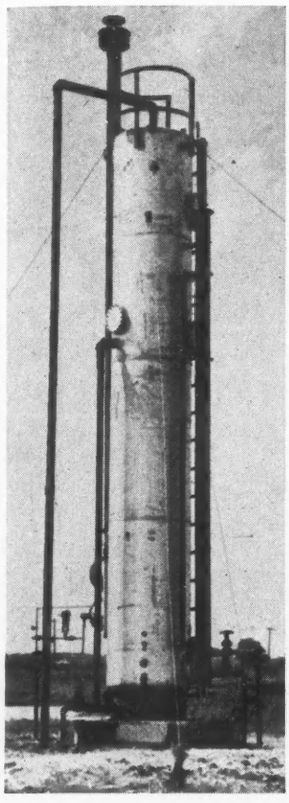
New Treating System Successful On Coast

A NEW type treating system installed in two fields in the Texas Gulf Coast is proving effective for dehydration and removal of corrosive salts from emulsified crude petroleum. It is said to approximate complete recovery of oil from the emulsions. Stanolind Oil & Gas Company has installed this unit at South Houston and Skelly Oil Company is using the system at Van Vleck.

The unit may be described as a gas/oil separator on top of a heating chamber, both within a cylinder or tank. The type used at South Houston is approximately four feet in diameter and 26 feet tall. The type used at Van Vleck is eight feet in diameter and 28 feet tall. Leading from the unit are several three-inch and one four-inch pipes which drain the unit of gas, oil, and water.



Emulsion enters the unit at the bottom of the heat exchanger, which is outside the cylinder, and flows through tubes into the upper section of the heat exchanger, and then into the top of the large cylinder. The heat exchanger is an eight-inch vertical pipe built onto the tank. After the emulsion flows into the top of the unit it flows downward through a feed pipe leading into the lower treating section (heating chamber) in the bottom of the tank. On the feed pipe there is a valve by which the flow of the fluid from the upper chamber can be regulated to create more uniform treating conditions and uniform results, regardless of flow constancy.

From the feed pipe leading from the upper to the lower section of the unit the emulsion passes through a perforated spreader pipe submerged in the hot salt water in the heating chamber. After the emulsion is mixed with the hot salt water it comes in contact with baffles in a continuous zigzag rising path above the heater tubes. All heat from the tubes was absorbed by the fluid as it passed upward around the tubes. Contact with the hot salt water and the heating surface of the heater starts the breaking of the emulsion.

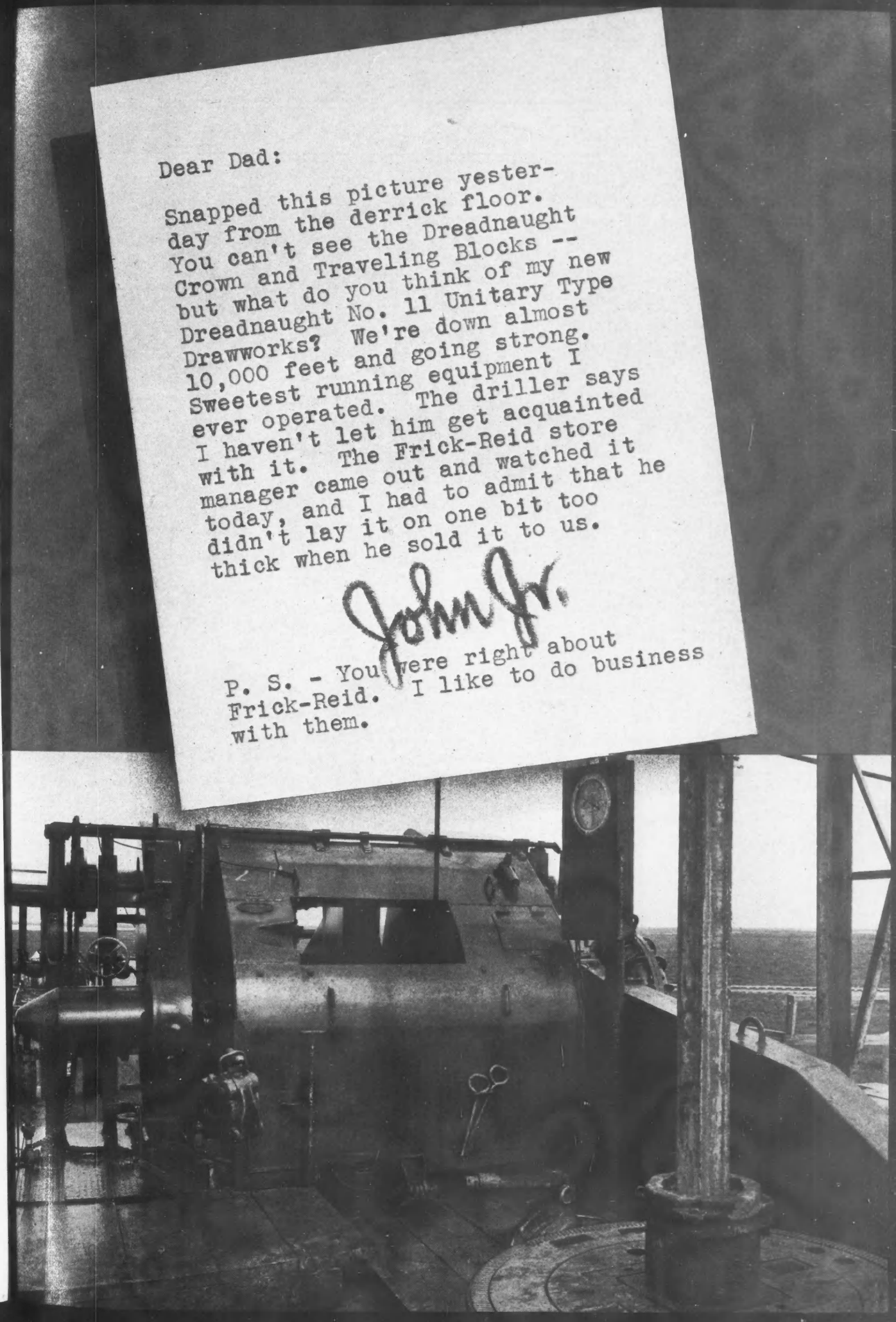
The baffle section retards the speed of the oil through the salt water, prolonging treating time until all emulsion is broken up. While the oil and water mixture is flowing under the baffle plates, the free water, being considerably heavier than the hot oil, gradually precipitates out of the confined path of the oil onto the upper surface of the baffle plate beneath, from which it is drained to the bottom of the treating tank. This procedure prevents counter currents of water against the oil and permits rapid dehydration or precipitation of the water and salts from the liquid. It also provides a very long travel path for the liquid, so that the volume of oil, that may be treated in the salt water section is greatly increased.

Above the baffle plates is the settling section for the final separation of the fine water droplets, which may be carried by the oil into the settling space. The oil entirely free from emulsion and practically free from all water flows through a passage at a level near the top of the tank into the heat exchanger and down the pipe and out into storage tanks. The heat exchanger consists of one pipe within another. The inner pipe is for the emulsion entering the unit and the outer is for the discharging the pipe line oil. Hot oil from the treating tank is cooled off in the heat exchanger by the cold fluid from the well passing through inner tubes in the heat exchanger.

Located at the top of the treating system is a three-inch pipe which runs down the side of the large cylinder and is used as a gas outlet. Salt water released from the emulsion flows to the bottom of the treating system and passes automatically out through the water syphon into the salt water ditch.

Two fire boxes (heating tubes) constructed in the lower chamber are controlled by an automatic heating system. Gas furnished from a well passes through this latter system, which has three small flow lines to the main unit. The lower line is an emergency auxiliary line for the main feed line. The main line, which keeps the temperature of the tank at a certain level, is controlled by an automatic thermostat regulator which cuts the gas on or off as needed. At the top is another flow line to a pilot light in the heating chambers.

On a shake-out test after treating oil on one of the leases at South Houston, Stanolind Oil & Gas Company found that the oil had less than one-tenth of one percent basic sediment and water.



Dear Dad:

Snapped this picture yesterday from the derrick floor. You can't see the Dreadnaught Crown and Traveling Blocks -- but what do you think of my new Dreadnaught No. 11 Unitary Type Drawworks? We're down almost 10,000 feet and going strong. Sweetest running equipment I ever operated. The driller says I haven't let him get acquainted with it. The Frick-Reid store manager came out and watched it today, and I had to admit that he didn't lay it on one bit too thick when he sold it to us.

John Jr.

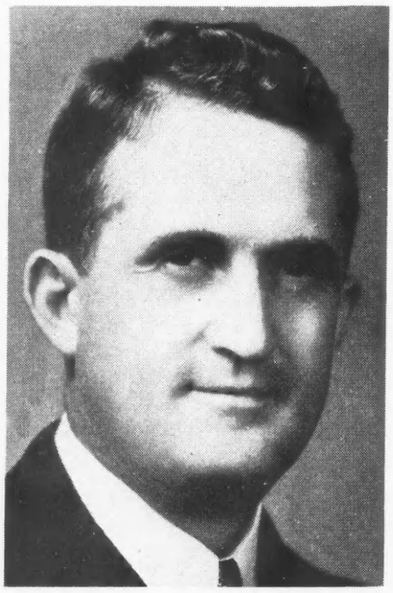
P. S. - You were right about Frick-Reid. I like to do business with them.

MEN IN THE INDUSTRY'S NEWS

F. W. FLOYD, PRODUCTION MANAGER OF THE CARTER OIL COMPANY, IS ELECTED DIRECTOR OF THE CONCERN

HE WAS EMPLOYED AS GEOLOGIST BY THE COMPANY IN 1923

F. W. FLOYD, in charge of production for The Carter Oil Company, has been elected a director of the company, replacing George H. Lang, who resigned to engage in business as an independent. Floyd was born at Seneca, Mo., November 24, 1894, and received his elementary education in the public schools of Missouri and Oklahoma. He graduated from the University of Missouri in 1916, with the degree of C. E. After service in the World War and with numerous oil companies, Floyd was employed by The Carter Oil Company in 1923 as geologist. Since that time he has served progressively as chief production engineer, assistant production superintendent, and manager of production and engineering. His residence is in Tulsa.



F. W. FLOYD

L. F. McCOLLUM, head of the exploration and development department of The Carter Oil Company, has been elected a director. He succeeds F. W. Abrams of New York.

C. C. ROSS, former minister of lands and mines in Alberta, Canada, was named president of the Anglo-Canadian Development & Holding Company, Limited, when directors held their annual meeting last week at Calgary, Alberta. A. K. Leitch, Calgary, was elected vice president, and H. E. Howard, secretary-treasurer. Directors, besides the officers, are F. P. Byrne, former president; W. G. Egbert, K. C., both of Calgary, and Walter S. Campbell, Edmonton. Stockholders of the company, which has large holdings in oil and natural gas rights in Turner Valley and on the Pincher Creek structure, approved a proposal to split shares 100 to 1.

F. B. PLUMMER, of the University of Texas conducted a party of petroleum engineering students of the university on an inspection tour of the oil and gas fields of north central Texas last week. Those in the party were: J. C. Hunter, Jr., Bill Murray, J. W. Haynes, Wayne Watts, A. E. Sweeney, A. S. Ross, G. B. Bennett, Herbert Karsch, W. H. Lewis, Bob Keen and C. E. Dana.

H. CARL WOLF, Muncie, president of Central Indiana Gas Company, was elected president of Indiana Gas Association at the closing session of the organization's convention held at Muncie recently. Other officers named are Dean H. Mitchell, Hammond, Northern Indiana Public Service Company, vice president; Paul A. McLeod, Newcastle, Public Service Company of Indiana, secretary, and E. C. Weston, Terre Haute, Indiana Gas Utilities Company; H. G. Horstman, Indianapolis, Public Service Company of Indiana; E. G. Peabody, Muncie, Central Indiana Gas Company, and L. B. Smith, Auburn, Northern Indiana Fuel & Light Company, directors.

JOHN I. HOPKINS, a representative of Paul Getty interests, has been elected to the board of Tide Water Associated Oil Company.

CHARLES C. HART, former American minister to Teheran who figured prominently along with Frederick G. Clapp in negotiating recently the Inland Exploration Company oil concession calling for exploratory rights on most of Afghanistan, recently made another visit to Baghdad, Iraq.

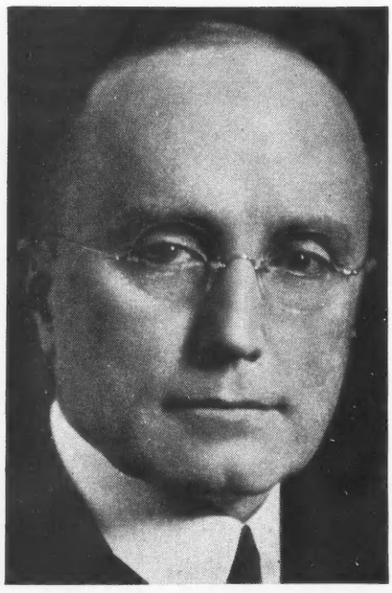
A. H. BELL, of Continental Oil Company, Los Angeles, Calif., has been appointed chairman of the California District Subcommittee on Standard Rigs and Derricks, a group active in the American Petroleum Institute's Division of Production. He succeeds R. R. Robison, resigned.

MARTIN HESS recently arrived in Venezuela to join British Controlled Oilfields, Limited. Hess formerly was a drilling superintendent for that organization in Venezuela.

H. D. HUSKEY or Kirkuk, drilling department of Iraq Petroleum Company, Limited, is scheduled to arrive in the United States on vacation late in the summer.

ROBERT H. COLLEY, ATLANTIC REFINING COMPANY'S NEW PRESIDENT, HAS HAD LONG PETROLEUM CAREER

HE WAS ENGAGED IN PRODUCING WORK AS EARLY AS 1906



ROBERT H. COLLEY

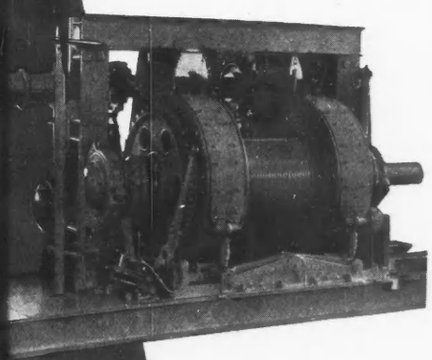
ROBERT H. COLLEY, newly elected president of The Atlantic Refining Company, reached his present position as the culmination of a long career in the petroleum industry. Colley was born in Bridgeport, Connecticut, June 15, 1886. He attended high school in Providence, Rhode Island, and the Bryant & Stralton Business College in the same city. In 1905, he entered the employ of Colley & Company, investment bankers, with offices in Providence and Boston. Colley & Company organized Southwestern Oil Fields Company, engaging in producing in the Mid-Continent area in 1906. Colley took an active part in the company's operations, and became one of its directors.

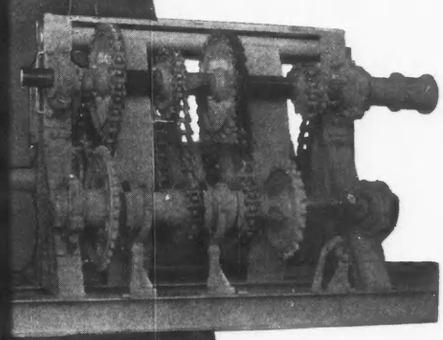
In September, 1917, following the entry of the United States into the World War, Colley enlisted in the artillery division of the army. During the war he took

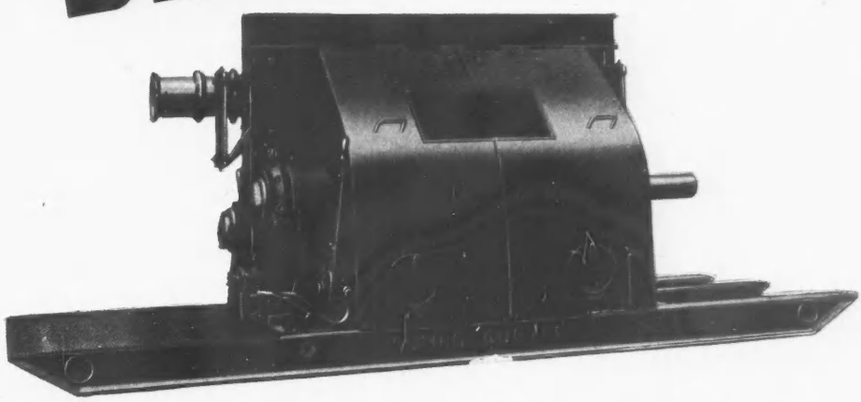
GUMBO BUSTER

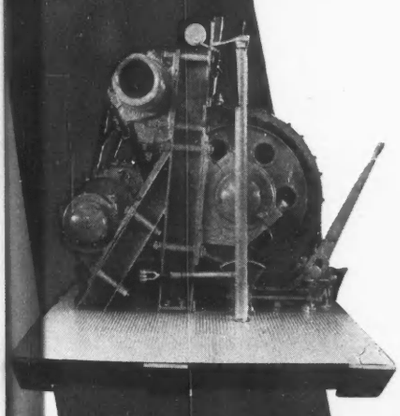
(JOHNSTON)

Unit JACK SHAFT DRAW WORKS 1805









Here is the big, new GUMBO BUSTER UNIT JACK SHAFT DRAWWORKS 1805, which is making outstanding records in fast, economical and trouble-free drilling in deep Gulf Coast and Mid-Continent holes. Here is the pacemaker to greater profits for drilling contractors and lower costs for operators. Here is the last word in advanced Rotary machinery for speed, economy and convenience in deep drilling.

Telephone our handiest representative for detailed specifications, prices and liberal terms—see it in our display rooms, in the field and on the job—then when you buy, take advantage of our facilities for supplying prompt delivery and specialized shop and field engineering service in placing it in service with related equipment.

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part in the battles of St. Mihiel and Meuse-Argonne. He returned to the United States in May, 1919.

In september of that year he entered the employ of The Atlantic Refining Company in the sales department. A little less than a year later he was assigned to represent The Atlantic Refining Company's management in Superior Oil Corporation, in the capacity of treasurer. In September, 1926, he was recalled to assume the position of assistant treasurer of The Atlantic Refining Company. He was elected treasurer, and a director of the company in 1929. Elected a vice president of the company in 1936, his election as president took place on May 4, 1937.

SAM KATZ, president of Compania Explotadora de Petroleo "La Imperial" S.A., has returned to headquarters in Mexico City after a brief trip to the United States.

RAY E. MOORE, president of Lincoln Petroleum Company, has purchased a residence in Tulsa.

HARRY HOST, 43, of Tylersburg, Pa., suffered serious injuries and missed death only by inches May 5 when his head was caught between the beam and the mast of an outfit operated by Contractors Walters & Rockey on the James Huent farm, near Mayport, Armstrong County, Pennsylvania.

E. K. PARKS, of Standard Oil Company of California, Los Angeles, has been appointed chairman of the California District Sub-committee on Production Practice, succeeding W. E. Gilbert, of Shell Oil Company, Los Angeles. Gilbert has been appointed national chairman of the Division of Production Topical Committee on Production Practice, succeeding B. H. Robinson, resigned.

HAROLD DECKER, formerly Gulf Coast superintendent for Skelly Oil Company, now is in charge of the Corpus Christi district for Seaboard Oil Corporation. Lloyd West is the geologist in the district, E. A. Chiles is clerk and H. N. Lyle, petroleum engineer. Melbert Schwartz is still located in the company's Dallas office as superintendent of the company's operations in the Mid-Continent division.

CHESTER D. WHORTON, of Godfrey L. Cabot, Inc., is the father of a baby girl born April 28 at Olean, New York. Mr. and Mrs. Whorton have selected the name of Mary Louise for their daughter.

WILLIAM H. DUNLAP, RUSSEL W. CARTER and **SAM P. DUFFIELD,** drillers from California, were scheduled to arrive in El Mene field, Venezuela, about May 15. They will be connected with British Controlled Oilfields, Limited.

W. C. WHALEY, of Barnsdall Oil Company, Los Angeles, has been appointed chairman of the California District Subcommittee on Standardization of Rotary Drilling Equipment, succeeding F. F. Hill, resigned.

CARL H. BEAL, independent oil operator of Los Angeles, was elected a member of the board of directors of Tide Water Associated Oil Company at a recent meeting.

WILLIS CRANE, associate counsel for the National Petroleum Association at Washington since 1932, has announced his retirement to devote his time to the general practice of law. Crane, who has also been associated with the Western Petroleum Refiners Associaton and the American Petroleum Institute, will maintain offices in the Munsey building at Washington.

FRANK E. ECKERT, NEW API EASTERN DISTRICT CHAIRMAN, HAS SPENT HIS LIFETIME IN OIL INDUSTRY

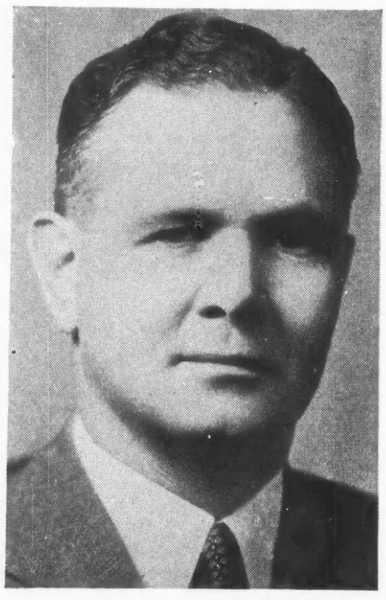
»

HE IS A PETROLEUM ENGINEER GRADUATE FROM UNIVERSITY OF PITTSBURGH IN 1921

»

FRANK E. ECKERT, who was elected chairman of the Eastern District of the American Petroleum Institute, Division of Production, a week ago at its annual meeting, is manager of the firm of Hanley and Bird, with headquarters at Bradford, Pennsylvania. Eckert for several years has been active in the affairs of the Eastern District of the American Petroleum Institute, and his selection as chairman is a fitting reward.

Eckert graduated as a petroleum engineer from the University of Pittsburgh in 1921, and worked as a consulting oil and gas engineer and geologist in various fields of the United States, Canada and Mexico from 1921 to 1926. At that time he accepted his present position with Hanley and Bird, which owns properties in Pennsylvania, New York and Kansas.



FRANK E. ECKERT

JOHN E. SEARLES and **LEONARD WAMMOCK,** drilling superintendents formerly with the Shell organization in California, are due to arrive in Miri, Sarawak, in May to become employees of Sarawak Oilfields, Limited.

BURTON DELLENEY, of Schlumberger Well Survey Corporation, addressed the Oklahoma City Geological Society May 10 on "Water Flow, Its Determination by Photo-Electric Process."

ELWIN M. EMERSON, oil pumper employed by Niagara Oil Corporation, suffered burns about the face recently as the result of a gas explosion in the power house on the company's lease at Knapp Creek, near Olean, N. Y.

ROBERT E. PARADISE, Los Angeles, formerly associated with Gibson, Dunn and Crutcher, has joined the legal department of Richfield Oil Corporation as assistant to the general counsel.

ROBERT HARCUS of Digboi, Upper Assam, India, drilling superintendent for Assam Oil Company, Limited, is vacationing in the United States after a visit to Scotland. He is accompanied by Mrs. Harcus.

CARL V. SCHLAET, independent operator of Fort Worth, spent a week in Tampico, Mexico, recently, looking after his oil interests in that vicinity.

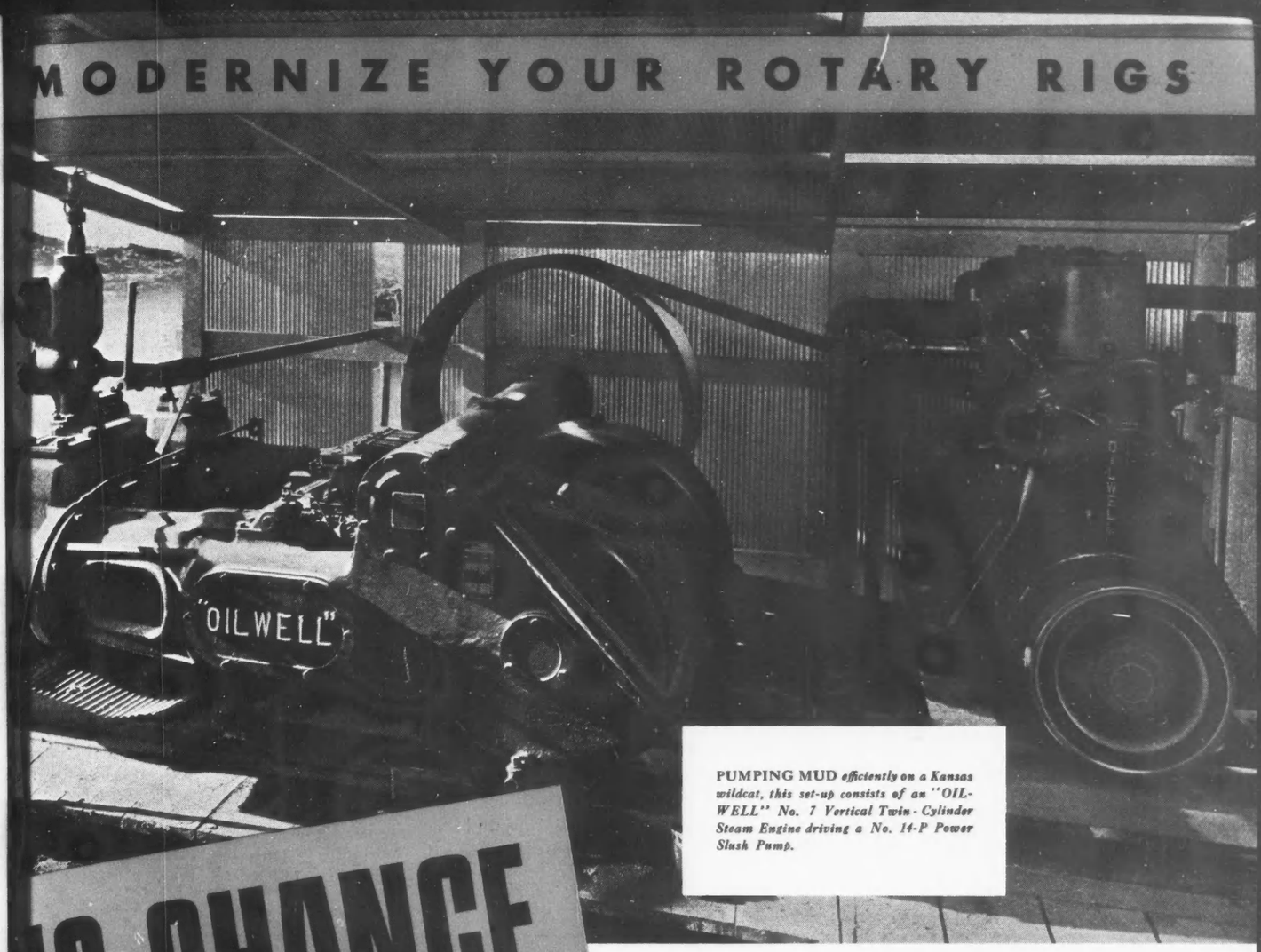
W. W. DUNLAP, Pennsylvania Grade Crude Oil Association, and Dr. Maynard Stephens, Pennsylvania State College mineral industries extension school, addressed members of the Oil City petroleum production and refining extension course conducted under the sponsorship of Pennsylvania State College at exercises commemorating completion of the first year's work. C. B. McClintock and Dr. G. O. Ebrey were the class instructors. Those receiving certificates were: Leonard Cropp, Donald Cropp, Lyman Graham, Richard Cubbitt, Howard Graham, Roy Frank, Eugene Pyle, Herald Dearth and Boyd Stephens in production; and Charles Peterson, David Bowen, Robert Marwood, William Barrett, Jonathan Blair, Joseph Stormer, Philip Healy and Edward Prall in refining.

C. D. BUFFETT, field superintendent for Stanolind Oil and Gas Company in the Hastings field of the Texas Gulf Coast, was killed in an automobile accident at Alvin, near Houston, May 8. Buffett was 35. He is survived by his wife and two sons.

HAROLD MYERS, 35, was instantly killed May 6 when his body became entangled in a steel cable being used to lower a bailer into a well in South Bradford. Survivors include his wife and four small children. Milo Green, working on the rig, lost all his fingers in an effort to free Myers.

DAVID K. BUCHANAN, 81, long-time oil man, died at Wichita Falls, Texas, May 4. He was a native of Pennsylvania, moving to Houston from Franklin, Pa., in 1910. Buchanan was associated with Gulf Refining Company of Louisiana at Shreveport, for 20 years from May 10, 1911, until June 1, 1931, at which time he retired. He is survived by four daughters and two sons.

MODERNIZE YOUR ROTARY RIGS



PUMPING MUD *efficiently on a Kansas wildcat, this set-up consists of an "OILWELL" No. 7 Vertical Twin-Cylinder Steam Engine driving a No. 14-P Power Slush Pump.*

IG CHANCE

O SAVE WITH STEAM ON SLUSH PUMPS

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75 years of progress

DURING 90% of the drilling time most of the steam goes to operate the slush pump. Great savings can therefore be made by using a modern power pump driven by an "OILWELL" Vertical Twin Cylinder Steam Engine equipped with variable steam cut-off.

Here's your best chance to save from 50% to 65% fuel and water and cut down on your boiler requirements. Ask your "OILWELL" man to show you the nearest installation. Go see it! Talk to the crew running it. Tremendous savings—proved by many field tests—are possible. Modernize with "OILWELL" steam saving machinery.

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Subsidiary of the United States Steel Corporation

Branch Stores in All Oil Fields

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Edited by
WM. V. GROSS, Associate Editor

Has Full Program

SECOND WORLD CONGRESS PLANS INTERESTING SESSIONS FOR ALL

EIGHTY-SEVEN papers are scheduled for discussion before the drilling and exploration section alone of the Second World Petroleum Congress to be held in Paris, France, June 14-19, inclusive. according to information received from S. Scheer, general secretary of the congress.

Of these, 62 have already been received. Seventeen are on geology; 28 on drilling and exploitation include 8 papers dealing with mud; and 17 papers on geophysics include 6 on reflection shooting.

Many other papers have been received by the congress for discussion at sessions devoted to physics, chemistry, refining, materials, building, technique of the use of liquid fuels, economics and statistics, indicating a successful program for all branches of the industry.

Many Subjects Involved

The section devoted to geology and drilling will include papers covering geological descriptions of oil regions, geological methods of prospecting in the field and in the laboratory, as well as synthetic studies of oil formations and their characteristics. It will also include discussions of drilling equipment, deep drilling, directional drilling, use of heavy mud, improvements in exploitation methods, spacing of wells, control of gushers, adaptation of methods to local conditions, and rejuvenation of oil fields.

Broad Geophysical Session

Geophysicists attending the congress will discuss progress in the various geophysical prospecting methods since 1933, the date of the first World Petroleum Congress in London. Technical discussions of this division will involve methods of gravity, seismic, electrical and magnetic, electrical logging, measurements in drill holes, and related subjects. The geophysical sessions will also include a study of the legal value of geophysical work in various countries

Section Leaders for World Petroleum Congress

ECONOMICS AND STATISTICS

MAURICE MERCIER
General Secretary, Compagnie Francaise des Petroles

UTILIZATION OF PRODUCTS

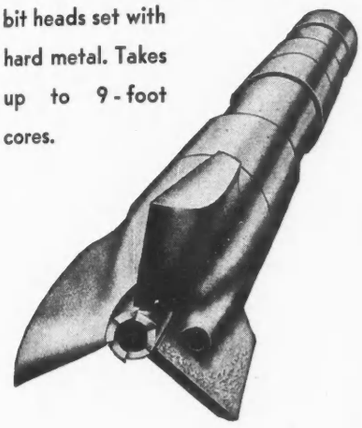
P. DUMANOIS
General Inspector of Aeronautics for France

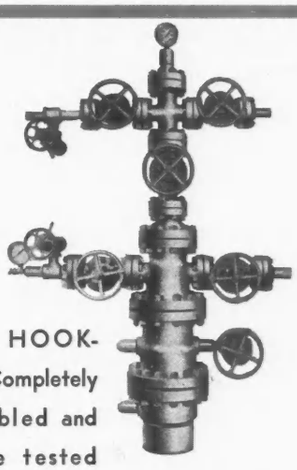
PHYSICS AND CHEMISTRY

H. WEISS
Director, le Ecole Nationale Superieure du Petrole

Oil Field Equipment that maintains the BREWSTER heritage of quality?

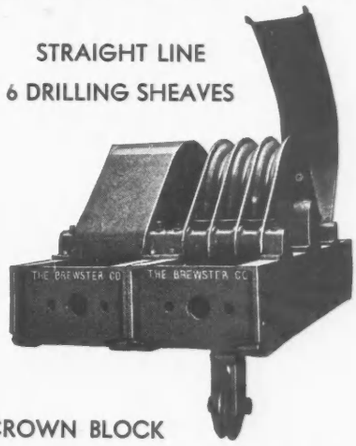
Wire-Line CORE BARRELS cut coring costs in half. 2 or 3-blade drag bit heads set with hard metal. Takes up to 9-foot cores.



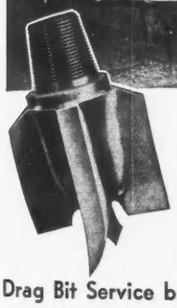


WELL HOOK-UPS. Completely assembled and pressure tested as high as 10,000 pounds. Flanges and special packing used throughout. Graduated flow-beans optional.

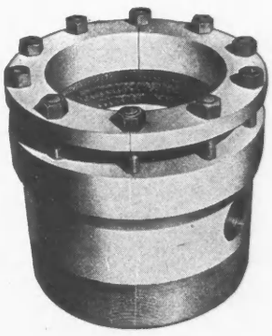
STRAIGHT LINE
6 DRILLING SHEAVES



CROWN BLOCK and TRAVELING BLOCK. 36" Manganese steel sheaves turn on American or Hyatt Roller Bearings individually Alemite lubricated. 450-ton capacity. Safety guards cover the sheaves. Write for prices.

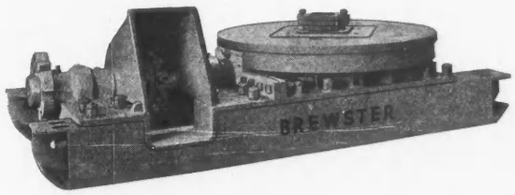


Every BREWSTER DRAG BIT is toughened by forging. That's the secret of our Drag Bit Service being the largest in the Gulf Coast and Mid-Continent fields.



CASING HEADS for every casing combination and any working pressure. Forged steel, turned body. Studs and bolts of high-tensile steel.

STRAIGHT FALL
5 DRILLING
SHEAVES



25½" SEMI-OILBATH ROTARY. All-steel. Skid type base. Low table. Safety guards cover table, sprocket and rotary lock. Pinion shaft bushings easily and cheaply replaced.

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from the viewpoint of mining rights.

Under the section devoted to materials and building, studies of construction of high pressure apparatus, corrosion, storage losses, and use of alloy steels will be made. These will be attended by physicists and chemists of the industry as well as petroleum engineers as the nature of most of the subjects to be discussed will involve the former two professions.

Quite a number of oil men from the United States have announced plans to attend the congress. Many of them have prepared papers for discussion at the sessions.

American Committee

The American committee of organization for the congress is headed by Dr. Gustav Egloff, director of research for Universal Oil Products Company, Chicago. Other members of the American committee include: Sydney Born, University of Tulsa; B. T. Brooks, consulting chemist, New York; W. A. Gruse, Mellon Institute, Pittsburgh; R. A. Halloran, Standard Oil Company of California, San Francisco; K. G. Mackenzie, The Texas Company, New York; Walter Miller, Continental Oil Company, Ponca City, Oklahoma; W. L. Nelson, University of Tulsa; J. B. Rather, Socony Vacuum Oil Company, New York; R. P. Russell, Standard Oil Development Company, New York; T. N. St. Hill, Petroleum Rectifying Company, Los Angeles; F. W. Sullivan, Standard Oil Company of Indiana, Chicago; Cary Wagner, Pure Oil Company, Chicago; T. G. Delbridge, Atlantic Refining Company, Philadelphia; C. B. Buerger, Gulf Refining Company, Pittsburgh; H. W. Camp, Empire Refineries, Incorporated; Emby Kaye, Skelly Oil Company, Tulsa, and A. E. Lacomble, Shell Petroleum Corporation, St. Louis.

Several Tours Planned

Before the congress convenes June 14, the following excursions have been arranged: (1) Trip to Morocco, including a visit to the oil regions there; (2) trip to southern France (Midi) following the Morocco tour; this will include a visit to Cote de Azur and the refineries in the neighborhood.

After conclusion of the congress there will be three excursions: (1) Visit to the refineries of the Lower Seine and an excursion to Normandie (Rouen, Havre, Trouville, and Deauville); (2) visit to refineries of northern France and a trip to Artois and Notre Dame de Lorette; (3) visit to wells and refineries at Pechelbronn, followed by a trip to Nancy, Strasbourg and the Vosges mountain.

Details concerning the above tours may be obtained from the secretary of the Second World Petroleum Congress, 85 Boulevard Montparnasse, Paris, as may details concerning the technical tours to be made to such places as the laboratories of Societe de Prospection Electrique, etc.

Hits Sulphur Water

HIGH RIVER-ALDERSYDE TEST TO PLUG BACK TO DALHOUSIE

INTRUSION of sulphur water precluded a production test of limestone at 8988 feet on Arca Development Company's wildcat on High River-Aldersyde structure, Alberta, Canada. Operators are planning to pull back to the Dalhousie sands at 8600 feet in the hope that some production may be obtained. Oil showings were found in the Dalhousie, but it is not known whether commercial production can be obtained.

The test, deepest of any drilled in the British Empire, is located on a large unproven structure and was undertaken by the C. and E. Corporation, the Imperial Oil Company, Limited, and interests associated with the Canadian Western Natural Gas, Light, Heat and Power Company, Limited. Several other companies hold acreage on the structure, but formulation of drilling plans are being delayed pending completion of the Arca well.

Weymarn Wildcat Bailing

Meanwhile, bailing was in progress at Weymarn Petroleums, Limited's wildcat on the Pincher Creek structure. Increasing gas pressure was reported as bailing progressed. The operators changed over from rotary to cable tool. Depth is 5950 feet.

Located in Legal Subdivision 5, Section 7, Township 6, the Weymarn well is not far from the site of the first well drilled in Alberta, known as the "original discovery" well at Waterton and drilled by the Rocky Mountain Development Company, Limited, in 1902. Provincial government records show that oil was encountered at a shallow depth, but transportation difficulties at that time and lack of oil prevented exploitation of the field. The structure is located between the towns of MacLeod and Blairmore, in the southwestern foothills area of the province.

Royalite Looking for Dalhousie

Royalite Oil Company's Dalhousie 8, central west flank of Turner Valley, which failed of commercial production in the limestone when completed several weeks ago, is preparing to test Dalhousie sands. The well was shot with 1000 quarts of nitroglycerine in the limestone, and the hole bridged over a few hundred feet from the bottom. Susequently, the drill stem twisted off and efforts to fish it out was unsuccessful. Location is Legal Subdivision 6, Section 30, Township 19.

Richland Oil Company's No. 3, deepest drilling test in Turner Valley, was making slow progress in hard formation with approximately 200 feet to go to the Madison limestone. Nearby, Richland's No. 2 was drilling below 3810 feet and Richland's No. 1 was below 2415 feet. These wells are located in a proven area, near the largest producers of the field.

Roxana Petroleums, Ltd.'s test on the Kootenay Dome structure, Legal Subdivision 5, Section 18, Township 24, drilled through the Madison limestone and the bit is now over 300 feet in the Banff shales, down 2700 feet. Production is expected at the contact of the Banff shales with the Devonian limestone.

South End Petroleums, Limited, has secured the Imperial-Highwood test from the Highwood Sarcee Oils, Limited, and is cleaning at 4525 feet preparatory to resuming drilling. Imperial Oil Company, Limited, drilled the test to its present level and later dropped the lease. It is estimated that the lime should be reached in another 400 feet. Location is Legal Subdivision 3, Section 36, Township 18, on the Highwood structure.

Drilling Report

The standing at other active Turner Valley wells as the week closed follows:

Brown Oil Corporation, Ltd.'s No. 1, drilling at 2300 feet; No. 2 drilling at 4000 feet; Commoil, drilling at 2575 feet; Davies Petroleum, Ltd.'s No. 1, drilling at 1500 feet; No. 2, drilling at 2455 feet; Firestone Petroleums, Ltd., drilling at 1111 feet; Four Star Petroleums, Ltd., drilling at 547 feet; Globe Oil Company, drilling at 1035 feet; Granville Oil Company, drilling at 2950 feet; Mercury Royalties, changing rig at 2820 feet; Mercury Oils, Ltd.'s No. 8, changing rig at 2755 feet; Model Oils, Ltd.-Spooner Oils, Ltd., drilling at 629 feet; Monarch Royalties, Ltd., drilling at 4635 feet; National Petroleum Corporation, Ltd.'s No. 2, drilling at 750 feet; Newfold Royalties, Ltd., awaiting shooting at 6524 feet; Phillips Petroleum, drilling at 2400 feet; Prairie Royalties, Ltd., drilling at 2550 feet; Rich-Well, spudding; Royal Crest Petroleums, drilling at 1850 feet; Share Royalties, drilling at 2400 feet; Royalite Oil Company's Sterling-Pacific No. 5, drilling at 3791 feet; Sunburst Oils, Ltd., drilling at 1525 feet; Sunset Oils, Limited, drilling at 930 feet; Three Point Petroleums, drilling at 1249 feet, and West Crest Petroleums, idle at 4300 feet.

NEW ROYALTY LAW

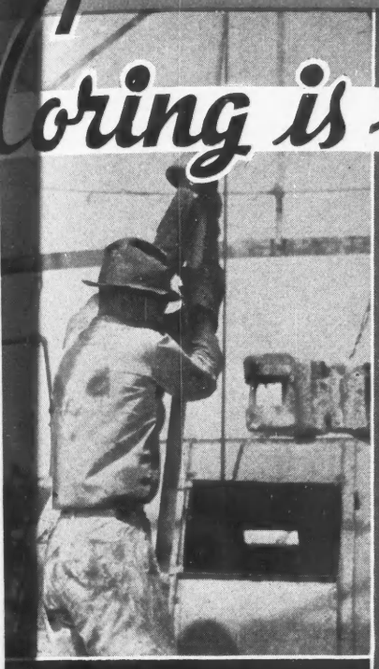
Objective to obtain more crude for Argentina

With the object of obtaining oil from private producers, the Argentine government has issued a decree establishing the manner in which the state oil fields will proceed hereafter in the collection of oil royalties, as provided by the National Petroleum Law, according to a report of A. Cyril Crilley, Buenos Aires, to the department of commerce.

Hereafter royalties may be paid in oil or in money, with contributions ranging from a minimum of 8 percent to a maximum of 12 percent, depending upon the locality of production, transportation facilities, and other special considerations.

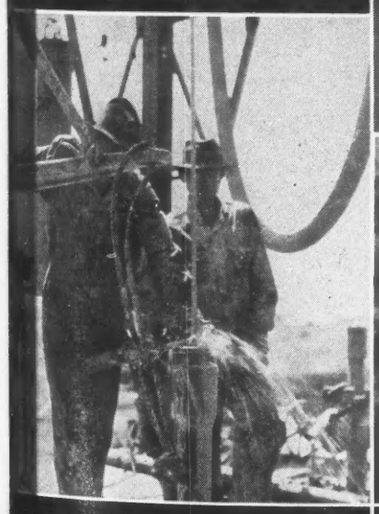
Coring is like clockwork with the

SIGNALLING CORE BARREL



...ing the Wire Line type Signalling Core ...rrel. Pump pressure speeds it to bottom.

Hooked up and cutting the core.



Retrieving the Wire Line Core Tube with Core.

. . . and here's the core!

On an outpost well at Refugio a Wire Line type Signalling Core Barrel was placed in service.

Here's what happened: Core tube pumped down at 350 pounds pressure in 4½ minutes to 6340 feet. Pressure lofts to 475 pounds . . . SIGNAL! . . . The core tube has landed, ready for core. Drilling 9 feet 1 inch as measured on the Kelly in from 15 to 20 minutes. Pressure lofts to 900 pounds . . . SIGNAL! . . . The core tube is filled with core. In 11 minutes core tube is back to surface with 10 feet of 2⅜-inch core . . . over 100% recovery!

And so it goes, over and over again just like clockwork, averaging nearly 20 cores a day and always recovering 100%, or more, of core.

Write for a copy of "Continuous Core Drilling," an interesting booklet which fully describes both the Wire Line type and Circulating type Signalling Core Barrels.

UNITED STATES
HEAT TREATING U S COMPANY, INC.
SAN ANTONIO TEXAS

IN THE

Financial Field

Financial markets less enthusiastic over prospects for earnings by oil group.

* * *

More first quarter reports reveal further that operations currently are profitable.

* * *

Humble 1936 year ahead of 1925; Tidewater and California Standard make dividends.

OIL COMPANY securities lately have been somewhat lacking in the resistant qualities that characterized them in earlier weeks when the general market was under pressure. Apparently, there has developed some questioning of the hitherto generally accepted idea that the oil group could be depended upon to show exceptional earning power for some time.

The financial markets appeared to be led to caution toward the oil company securities about the time that the official report was issued showing crude oil stocks had passed 300,000,000 barrels, as of April 24. That figure gave further striking evidence that crude production has been excessive for about three months, having caused the running of about 15,000,000 barrels of crude to storage within 13 weeks.

The oil industry apparently has been experiencing lately, along with many other industries, some flattening of the hitherto rising trend of consumption, although the demand for petroleum still is running well above last year's levels.

Crude Control Significant

The future trend of oil company security prices may be expected to react to some extent to results in controlling crude oil production. If better regulation of the output of the wells is brought about when allowables are prescribed for June and succeeding months, there will be better chances for improvement in crude prices and also products, and oil company stocks will be more attractive. But if the excessive crude production of the past three months is allowed to continue, there can be but little serious hope of better oil prices.

General Situation Unsettled

The trend of the oil company security prices naturally will be influenced also by the developments in the general situation. Concerning the general outlook, opinion does not appear to be clearly defined. There is much talk of a probable lull in business in the summer and part of the fall and of a likely dull stock market meanwhile.

Since the stock market is supposed to anticipate developments somewhat in advance of their actual occurrence, however, it is felt in some quarters that there will be a major upturn in the stock market before the end of the predicted period of dull business. This viewpoint is predicted on the assumption that business activity will revive appreciably in the fall and winter, and perhaps continue strong into next year. At present, however, caution continues to prevail generally in the financial field, as investors and traders watch for clearer indications of what to expect in the immediate future.

More Reports Issued

Financial information on oil companies made available within the past week included additional reports covering the first quarter of this year, and also several more reports covering 1936 operation.

Louisiana Land

Louisiana Land & Exploration Company for the first three months of 1937 reported net profit of $540,600, after federal income taxes, depreciation, depletion, leases abandoned, etc. This was an improvement of 31 percent over the profit of $411,200 in the first quarter of 1936.

Louisiana Land & Exploration Company for the year of 1936 reported net profit of $1,901,298, or 63 cents a share. This was the most profitable year in the company's history. The 1936 profit was 97 percent larger than that of the previous year, when net income was $973,135, or 32 cents a share.

The Louisiana Land & Exploration Company's properties that are being developed by The Texas Company in 1936 produced a total of 13,008,190 barrels of oil. In 1935 the similar production amounted to 9,245,535 barrels. A total production from the State lease at Caillou Island, not covered by The Texas Company contract, and in which Louisiana Land has a one-half interest, amounted to 245,157 gross barrels.

The company's net revenue in 1936 from royalties on properties under The Texas Company contract, after payment of production taxes to the state of Louisiana and to the federal government, amounted to $2,351,413, equivalent to 2,197,758 barrels of oil produced. Similar net revenue in 1935 was $1,459,680, equivalent to 1,517,019 barrels of oil.

Amerada Corporation

Amerada Corporation in the first three months of 1937 had profit of $517,115, or 66 cents a share. This compares with $473,996 of 60 cents a share in the similar quarter last year.

Quaker State

Quaker State Oil & Refining and subsidiaries have reported for the first three months of 1937 net profit of $387,737, after depreciation, federal and state income taxes, and other charges. This compares with $163,752 for the comparable period last year.

Mission Corporation

Mission Corporation in the three months ended March 31, 1937, showed net income of $1,395,878, or $1 a share, after all deductions. This included nonrecurring profit of $1,249,234 from the sale of 250,000 shares of Tide Water Associated Oil Company common stock to Revada, Incorporated. In the first quarter of 1936, Mission Corporation had a net income of $267,790, or 19 cents a share.

Lone Star Gas Corporation

Lone Star Gas Corporation and subsidiaries for the first three months of 1937 reported net income of $3,197,470, after interest, depreciation, depletion, federal income taxes, etc. This compares with $3,309,403 of income in the initial quarter of 1936.

Ohio Oil Company

Ohio Oil Company and subsidiaries report that for the first three months of 1937 net profit of $3,471,629 was earned, after federal income taxes and usual deductions, equal to 40 cents a share on the company's common stock. That compared with profit of $2,255,139 in the similar period of 1936, after ordinary taxes and charges but before federal income taxes.

Superior Oil Corporation

Superior Oil Corporation in the first three months of 1937 reported net profit of $42,167 after usual deductions, equal to three cents a share on the capital stock. This compares with $63,438, or six cents a share in the similar period of 1936. In the first quarter of 1935 the company reported profit of $81,561 before federal income taxes.

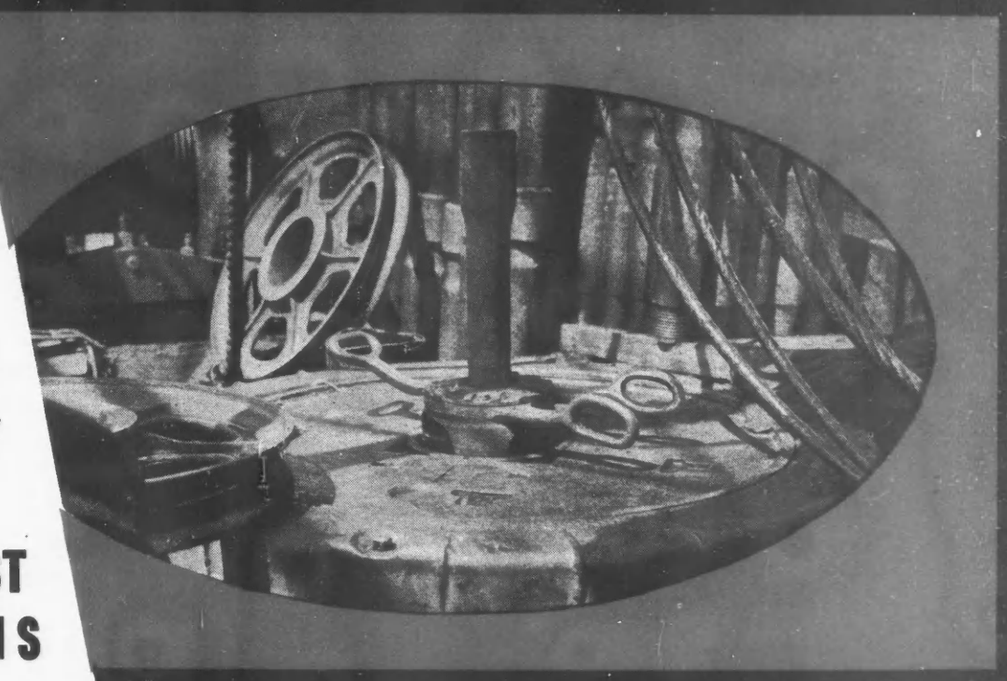
Superior Oil Corporation reported to the New York Stock Exchange that as of March 31, 1937, it took over the

Again

T-I-W SLIPS

HANDLE SAFELY and EFFICIENTLY one of the

WORLD'S LONGEST DRILL STEMS

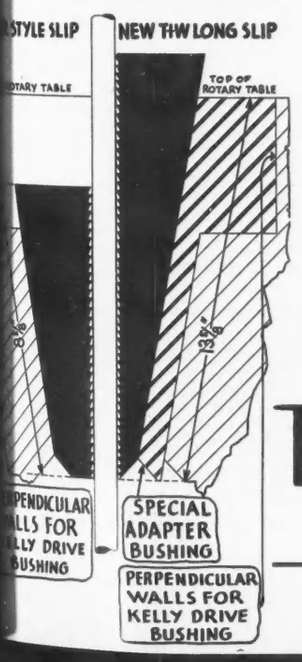


HORSESHOE BAYOU #1

Patented

FOR DEEP WELLS

T-I-W Long Reliner Type Slip, with adapter which makes 62 percent added length possible, giving 20″ bearing surface against pipe.



COMPARE

Note in the illustration at the left the T-I-W LONG SLIP FOR DEEP WELLS on one side of the pipe, and the regular type slip on the other side of the pipe.

The special split bushing, constructed to utilize for slip bearing that part of the rotary normally occupied by the Kelly drive bushing, EXTENDS THE EFFECTIVE GRIPPING AREA OF THE T-I-W LONG SLIP 62%.

LOUISIANA GULF COAST

S. Rhodes

DRILLING CONTRACTOR

JENNINGS, LA.

This hole is already one of the deepest ever drilled in the world; and is still drilling to a possible world's record for depth.

LEADING OIL OPERATORS use T-I-W LONG RELINER TYPE SLIPS for

DEEP WELLS

because they give

SAFETY

in handling long strings of pipe and casing.

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For ALL USES IN THE OIL FIELDS

- **O. K. STANDARD PORTLAND CEMENT** is used wherever there is need for an all-purpose cement of highest quality. It exceeds by a wide margin all the requirements of the Standard Specifications of the United States Government and of the American Society for Testing Materials.
- **O. K. LIGHTNING OIL-WELL CEMENT,** developed to fill the need for a high early strength cement absolutely unaffected by salt water, has been proved by laboratory tests and by years of successful use in the field, to be the best possible insurance for a successful cementing job.
- **O. K. SLO-SET OIL-WELL CEMENT** meets the demand for a product which will not set while being pumped into wells of 5000 to 10,000 feet. It successfully resists the high pressures and high temperatures sometimes encountered in this type of well, and gives ample time for completing the cementing job before the cement stiffens. O. K. SLO-SET OIL-WELL Cement is sulphate-resistant and meets the most exacting requirements for this type of oil field cementing.
- **O. K. FIBERED OIL-WELL CEMENT** was developed to fill the demand for a hydraulic cement to seal off broken and fissured formations when encountered in oil wells. A fibrous material is mixed uniformly in the cement in manufacturing. When the fibered cement mixture starts to enter a crack or fissure in the formation, the fibers spread across and seal it, preventing entrance and loss of slurry into the broken formation.
- **O. K. SUPERFINE MASONRY CEMENT** is manufactured from the same raw materials as O. K. Portland Cement. It is unexcelled for mortar with proper sand, for laying up brick, block, tile, terra cotta, stone, and all masonry. It makes a plastic and easy working, highly adhesive mortar, extremely durable and very economical because of ease in handling and great cohesion. It combats efflorescence and is water repellant, shedding moisture and preventing water penetration of mortar.

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AUDITS
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business and properties of its subsidiary, Superior Oil & Gas Company, which has been discontinued as an operating company.

American Maracaibo 1936 Report

American Maracaibo Company for 1936 reported net loss of $175,913, after taxes, depreciation, depletion, interest, etc., and including a loss of $149,106 on sale of leases in Texas. This compares with net loss of $137,532 in 1935. The company in 1936 acquired additional leases in Texas and Oklahoma.

Humble Oil & Refining Company

Humble Oil & Refining Company last year had the most profitable year in its history. The company for 1936 reported net profit of $34,183,527, after taxes, depletion, depreciation, retirements, other amortization, and interest. That was the equivalent of $3.80 a share on 9,000,000 shares outstanding. The 1936 profit was 43 percent higher than the $23,966,326 earned in 1935, and $1,648,447 more than the previous peak earningsof $32,535,080 established in 1929.

Darby Petroleum Corporation

Darby Petroleum Corporation for 1936 reported net profit of $444,140, after taxes, depreciation, depletion, and other deductions, equal to $1.26 a share on the capital stock. This compares with $459,475, of $1.31 a share in the previous year.

Tide Water Associated

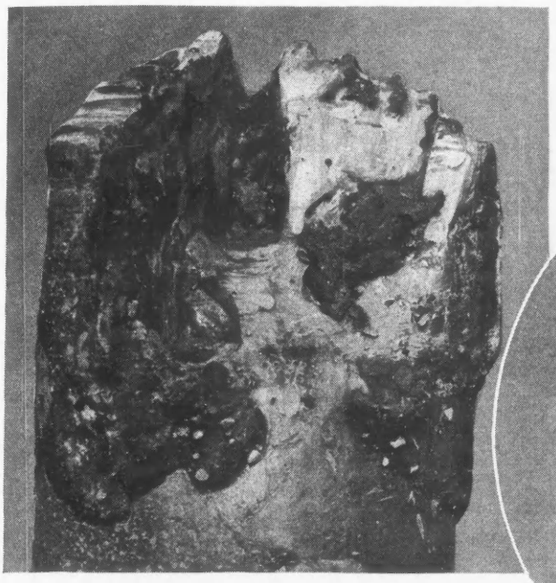
At the annual stockholders meeting, William F. Humphrey, president, stated that Tide Water Associated Oil Company, because of current favorable earnings, has declared a dividend of 20 cents a share payable June 1, to stockholders of record May 10. The company for the first quarter of 1937 showed a profit of $3,328,303, or 39 cents a share. The stockholders reelected 13 directors and elected three new directors to the board. Charles M. Cadman, J. A. Chanslor, J. F. Forbes and J. J. Hopkins were elected for terms of one year. L. F. Bayer, B. I. Graves, L. D. Jurs and Noel Robinson were elected for terms of two years, and Carl H. Beal, Adolphe Boissevain, Frank Haskell, John Hertz, Robert McKelvy, Ralph B. Pringle, Paul Shoup, and Elisha Walker were elected for terms of three years. Alden Anderson, George N. Armsby, Henry W. DeForest, H. P. Grimm, William F. Humphrey, E. H. Salrin, R. M. Sands and E. L. Shea continue as directors, as their tenures of office from previous elections have not expired. The three new directors on the board are Beal, Hertz, and Hopkins. Hopkins, a director of Pacific Western Oil Corporation, represents the J. Paul Getty interests, which have sought larger influence in the affairs of the Tide Water Company.

Dividends Declared

Standard Oil of California has declared a regular dividend of 25 cents a share and an extra dividend of 20 cents a share, payable June 15 to stockholders of record May 15.

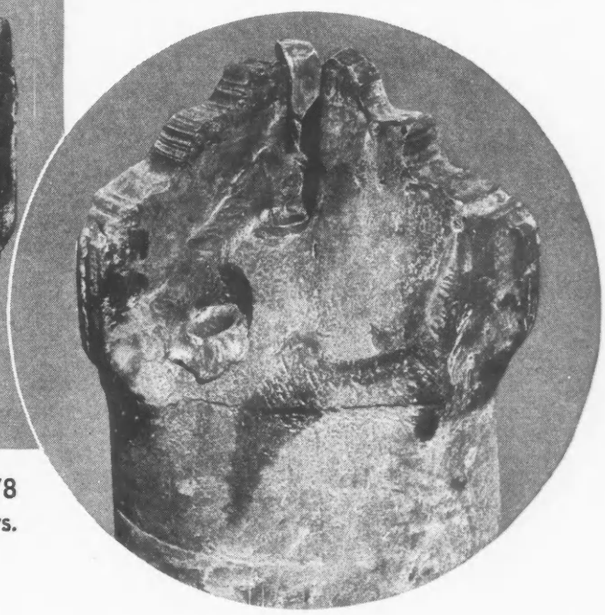
Skelly Oil Company, with earnings

HAYSTELLITED BITS DRILL STRAIGHT HOLES FAST



Above: This Haystellited bit drilled 3678 feet through hard sand in 62½ hours.

Below: This Haystellited bit drilled 3009 feet through hard sand in 60 hours.



● Each of these two bits drilled over three thousand feet of out-to-gauge holes at Tomball Field, Texas—and drilled this footage at an average speed of nearly a foot a minute. Both bits were hard-set with Haystellite Inserts and faced with Haystellite Composite Rod. No reaming was necessary before the casing was set.

This, and similar outstanding performance records of Haystellited bits in many other fields indicate the results that you too can expect when you use Haystellite Inserts and Haystellite Composite Rod according to the simple procedures explained in "Haynes Stellite Products in The Oil Fields." This valuable 36-page book is available to you without cost or obligation. Write the nearest office for a copy today.

PRODUCTS OF A UNIT OF UCC UNION CARBIDE AND CARBON CORPORATION

HAYSTELLITE TRADE MARK

The cast Tungsten Carbide diamond substitute

HAYNES STELLITE COMPANY

Unit of Union Carbide and Carbon Corporation

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Haynes Stellite Welding Rods and information on other Haynes Stellite Products also are available through the 42 apparatus shipping points of The Linde Air Products Company

showing material improvement over last year, has resumed dividends on the common stock. The company declared a payment of 50 cents a share, payable July 1. This will be the first payment since December 15, 1930, when 50 cents a share was paid.

The company in the first quarter of 1937 showed a profit of $1,534,413, or $1.43 a share on the common stock. This compares with net income of $797,015 in the first quarter of 1936, which represented 69 cents a share on the common stock.

Standard Oil Company of New Jersey has declared an extra dividend of 75 cents a share, in addition to the regular semi-annual dividend of 50 cents a share, both payable June 15. The company paid a similar extra dividend six months ago. One year ago the company paid 25 cents extra and the regular 50 cent dividend.

Standard Oil Company of Indiana has authorized payment of an extra dividend of 15 cents along with the regular quarterly dividend of 25 cents a share. This represents the same total disbursement as three months ago. Standard Oil of Indiana on December 15 paid a year-end extra of $1 and the regular quarterly dividend.

Companies Plan Refinancing

Reiter-Foster Oil Corporation of Tulsa has made a public offering, by means of a prospectus, of 244,863 shares of common capital stock without par value. The stock is listed on the New York Curb Exchange. Proceeds from the sale of the stock will be used in part, it is stated, to satisfy a trust mortgage, securing notes payable, for taxes and accounts payable, and the rentals on leaseholds, geological work, and drilling operations. The company's authorized capitalization consists of 1,000,000 shares of no-par capital stock, of which 750,150 shares will be outstanding on completion of this financing.

Pure Oil Company has filed a registration statement with the Securities Exchange Commission covering 469,454 shares of cumulative convertible preferred stock, par value $100, full and fractional subscription warrants, evidencing 3,990,360 rights to purchase the preferred stock, and an undetermined number of shares of no par value common stock to be reserved for conversion of the preferred. This preferred stock will be offered to common stockholders of record May 28 on the basis of 2/17 of one share of preferred for each share of common stock held. The rights to subscribe to this stock expire June 18. The offering price will be $100 a share.

From the sale of the preferred stock, proceeds will be used to redeem 76,620 shares of 8 percent cumulative preferred stock, to pay $4,000,000 balance due on bank loans, and to redeem on July 1 at 105 any outstanding 4½ percent notes which have not been retired at 102½ with funds supplied on or before May 20 through the exercise of common stock purchase warrants attached to the notes.

WE DIDN'T INVENT THE APPLEMAN GUMBO BIT

but....

...we have brought it to a higher standard of perfection!

Build a better Appleman Bit than has been available heretofore . . . that was our aim when we began forging Applemans, and we've done it! Careful selection of the steel best suited for this purpose, forged and machined by experts to our own rigid specifications, contributed to the improvement of this tool. But it's to the men in the field . . . Engineers, Pushers, Drillers . . . who pointed out to us possible improvements in its design, that we give credit for OCB Forged Appleman Bit Perfection.

FORGE PLANT CAPACITY DOUBLED

Faster service and a wider range of work on heavy steel forgings has been made possible by the recent addition of a new 6,000 pound Steam Hammer to our forge plant facilities.

OIL CITY BRASS WORKS

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Houston Branch:
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149 Broadway, New York City
A. V. Simonson, Manager

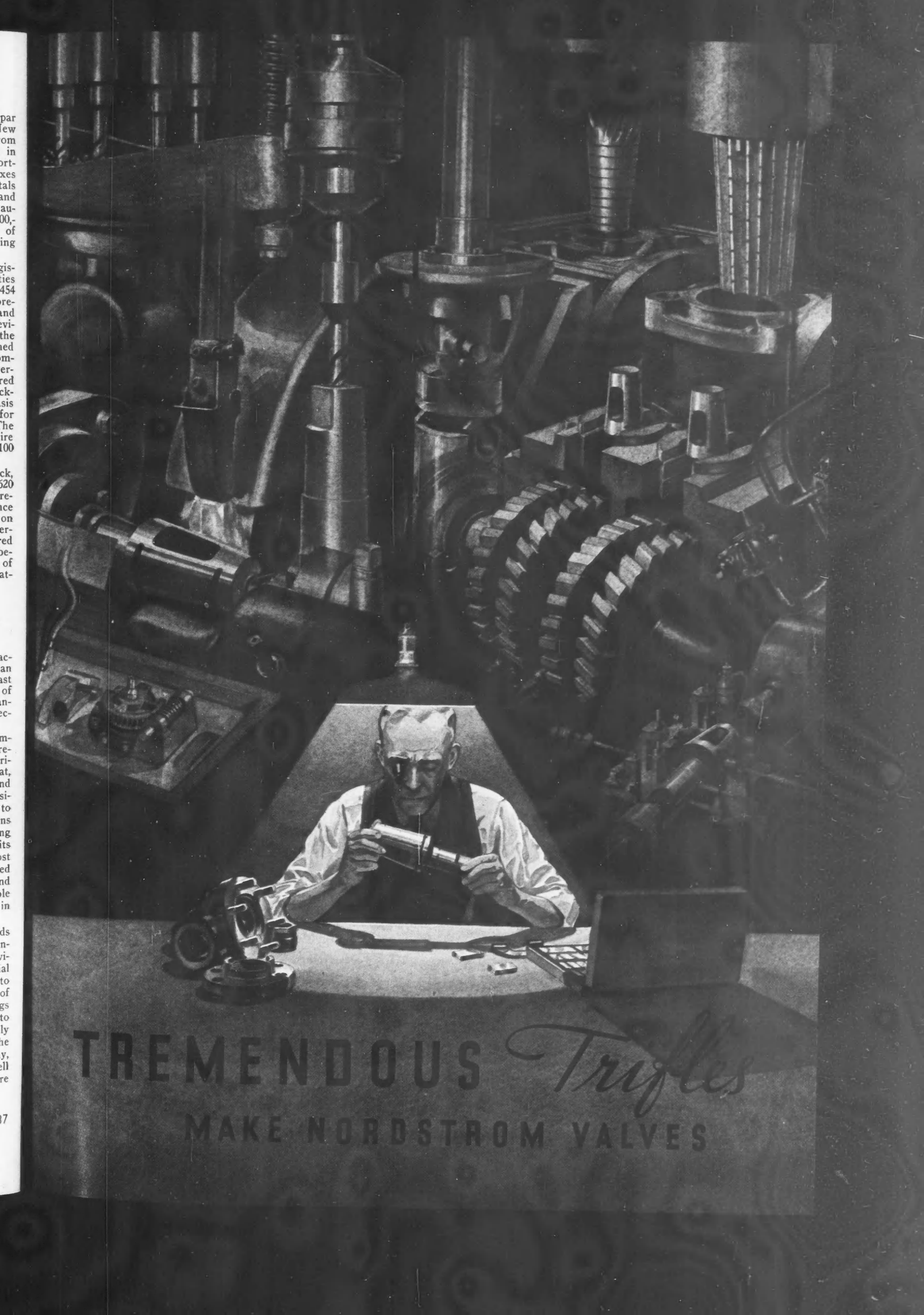
More dressings per Bit!

Canadian Reports

Calgary, Alberta, Canada.—Satisfaction with the operation of Canadian producing companies was indicated last week when shareholders of several of the larger organizations held their annual meetings. Few changes in directorates were made.

Shareholders of Imperial Oil Company, Limited, approved the annual report presented by President G. Harrison Smith, who told shareholders that, because of equipment, personnel and organization, the company is in a position where it may reasonably hope to benefit by the improved conditions which are expected to prevail during 1937. Demand for petroleum and its products is steadily increasing. Most interests are satisfied as to the need for orderly and economic operation and the prospects, therefore, are favorable for the world petroleum industry in 1937, he said.

Distribution of $527,480.25 in dividends to Royalite shareholders was announced. It constitutes a regular dividend of 50 cents a share and a special dividend of 25 cents a share, payable to shareholders on record at the close of business May 15. This dividend brings the total distribution to shareholders to $5,811,480.25. Royalite was originally incorporated in 1921 to take over the Calgary Petroleum Products Company, Limited, drillers of the discovery well in Turner Valley a short time before the World war.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MAKE NORDSTROM VALVES

Point by point, *Nordstroms meet every major valve need*

Manufactured by extreme precision methods in world's most modern plug valve plant.

Sizes—½" to 30".

Pressures—Working pressures up to 5000 pounds.

Temperatures— −60° to +600° F.

Metals—Special alloys for specific services.

POINT 1 —QUARTER TURN
Quickest to open or close.

POINT 2 —SIMPLEST DESIGN
Fewest parts. Nothing to clog.

POINT 3 —"SEALDPORT" LUBRICATION
Patented feature provides proper lifting of plug by positive pressure.

POINT 4 —FULL-FLOATING PLUG
Always easy to turn. Non-freezing.

POINT 5 —POSITIVE PLUG SEAT
Plug rides on pressure lubricant seat from which it is never separated.

POINT 6 —NON-STICKING
Powerful hydraulic force performs triple function—lifts plug to turn easily; lubricates and seals valve.

POINT 7 —STREAMLINED FLOW
Minimum resistance to line flow.

POINT 8 —NON-LEAKING
Sealed by lubricant under pressure; prevents external and internal leaks.

POINT 9 —UNEXPOSED LUBRICANT
"Sealdport" lubricant grooves in plug and body so arranged that line contents cannot blow through when lubricant screw is removed.

POINT 10 —CHECK VALVES
One or more ball checks in shank.

POINT 11 —SPECIAL LUBRICANTS
Highly developed lubricant and plastic materials in every consistency to meet specific needs for all variations of temperature and line contents.

POINT 12 —SPECIAL ALLOYS
For every service, including iron, Nordco steel, semi-steel, stainless steel, bronze, Mercoloy, aluminum, nickel alloys, etc.

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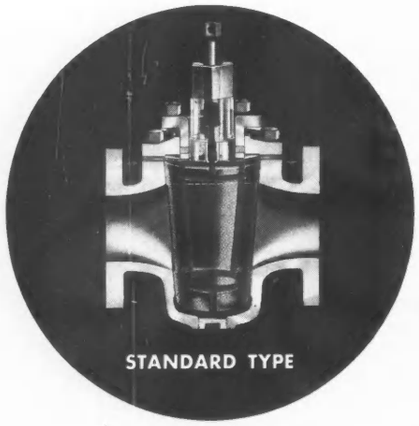
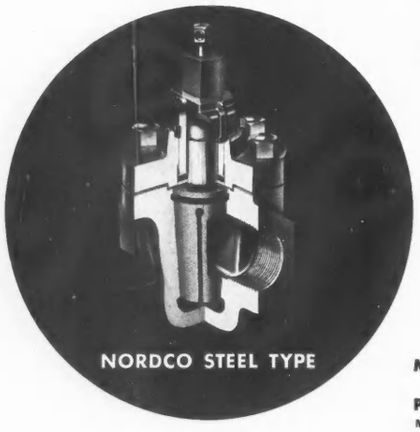
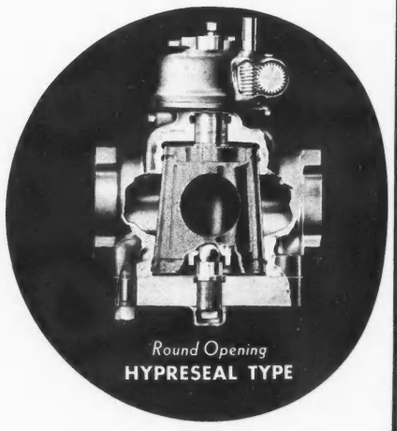

STANDARD TYPE

HYPRESEAL TYPE


NORDCO STEEL TYPE


Round Opening
HYPRESEAL TYPE

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NORDSTROM VALVES

LUBRICATED PLUG

PATENTED "SEALDPORT" LUBRICATION

Markets Cautious

PRICES REMAIN LARGELY UNCHANGED DURING WEEK

THE OIL industry's markets lately have been reflecting caution on the part of buyers, and prices have continued largely unchanged for the second consecutive week.

The crude oil markets remain marred by the near-record levels of production and the attending additions to storage, as demand fails to absorb the record output of the wells. The talk of higher crude prices that was heard some weeks ago consequently has largely subsided.

It has become evident that the condition of the crude markets in the future will depend on the control of production, which will have to be tightened, if the running of crude to storage is to be eliminated. The additions to storage have been under way steadily for 3½ months, and apparently will continue at least until the end of this month.

Crude Stocks Up Again

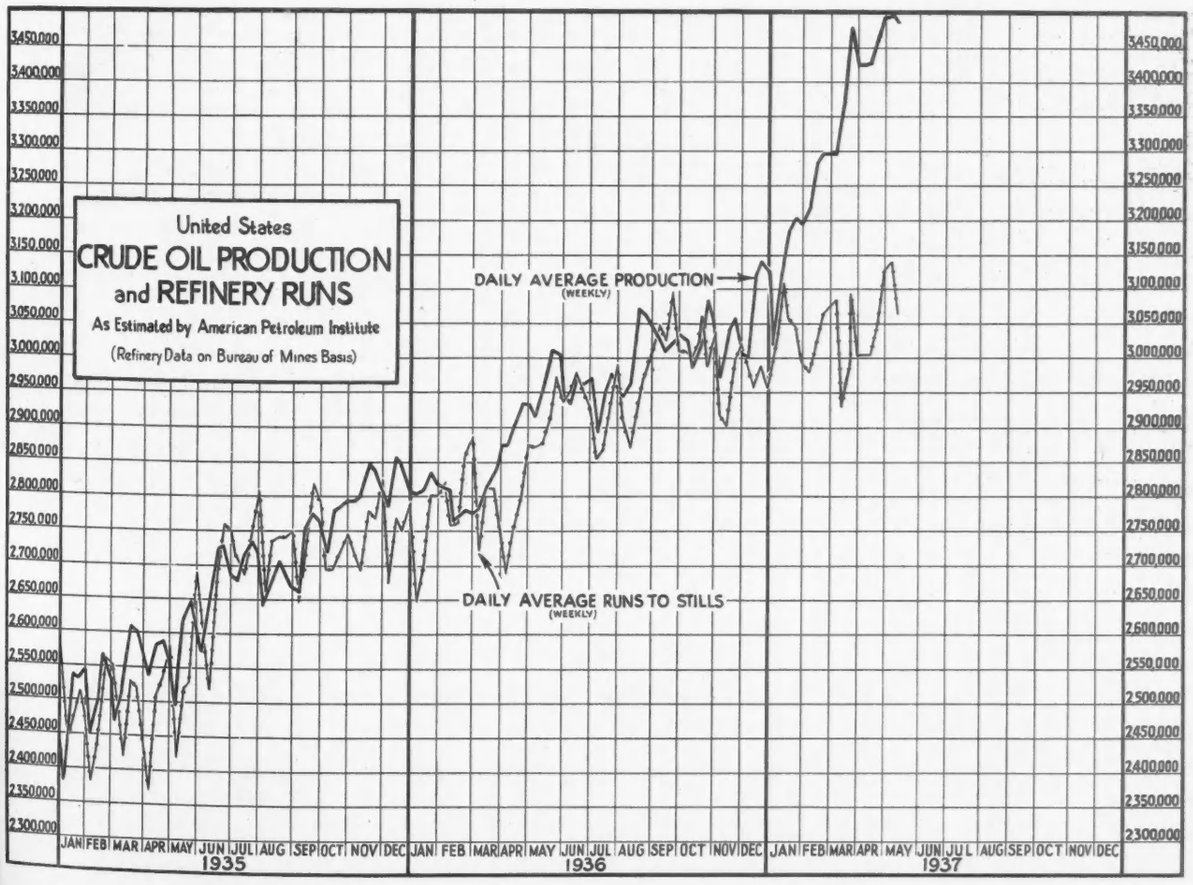
The latest weekly report of the Bureau of Mines brought evidence of further heavy runs of crude into storage as output continued above the market requirements. In the week ended May 1 the crude stocks were increased 2,512,000 barrels, after having shown an increase almost that large the week before. The crude storage has increased every week for 14 weeks, or since January 23, and within that period the United States stocks have been expanded 18,038,000 barrels, or at an average rate well above a million barrels a week.

The continued heavy additions to crude storage in recent weeks has occurred, moreover, in the face of somewhat stricter allowables, This indicates that demand is failing to show the briskness that was anticipated in setting the crude production allowables.

Gasoline Market Steady

The gasoline market is holding up fairly well, with refinery prices mostly unchanged, although tank wagon and retail prices have lost some ground in certain districts in the past two weeks. The latest weekly report of the American Petroleum Institute showed that total finished and unfinished gasoline stocks increased 62,000 barrels in the week ended May 8. They then stood at 81,469,000 barrels, or about 2,000,000 barrels down from the all-time peak reached six weeks previously, on March 27.

The gasoline stocks on hand May 8 were approximately 11 percent larger than those held one year previously. That was a somewhat larger increase in the inventories than the gain in de-



mand justifies, as May demand for gasoline is expected to be 9 percent above the "normal" demand for May last year, according to the Bureau of Mines' latest monthly forecast.

Refinery operations, meanwhile, continue at high levels. In the week ended May 8 the crude runs to stills averaged 3,065,000 barrels daily, off 75,000 barrels from the all-time peak set in the previous week.

Refinery Prices

Refinery prices in the Mid-Continent late last week continued mostly unchanged from the levels of the preceding two weeks.

U. S. Motor gasoline f.o.b. Oklahoma refineries ranged from 5⅛ to 5¼ cents a gallon for the 62 octane and below, around 5½ cents for the 63 to 67 octane, and from 6⅛ to 6¼ cents for the 68 to 70 octane material.

Corresponding prices in the Chicago market were: 5 to 5¼, 5⅜ to 5½ cents, and 5⅞ to 6⅛ cents a gallon.

At the East Texas refineries the usual 60-62, 400 end point gasoline was priced from 5¼ to 5⅜ cents a gallon.

CRUDE PRICES

Complete table of prices paid for crude oil at the well in principal fields will be found on page 134 of The Oil Weekly, May 3. Hereafter this schedule will appear only in the first issue of each month except when changes are announced.

Kerosene prices f.o.b. Oklahoma refineries ranged from 4¼ to 4⅜ cents a gallon for the 41-43 water white grade, and from 4⅜ to 4½ cents for the 42-44 water white grade. The Chicago prices were one eighth-cent lower than the Oklahoma prices.

Taxes $1,382,929

Austin.—Crude oil taxes for the month of March totaled $1,382,929, according to a report issued last week by State Comptroller George H. Sheppard. This tax represents collections made at the rate of 2¾ percent of the value on 43,357,729 barrels of oil.

Weekly Trends of United States Production and Stocks

(Figures American Petroleum Institute, except crude stocks, Bureau of Mines)

WEEK ENDED—	Crude Oil Production (Barrels Daily)	Crude Runs to Stills (Barrels Daily)	Crude Oil Stocks (Barrels)	Gasoline Stocks (Barrels)	Gas & Fuel Oil Stock (Barrels)
January 2, 1937	3,121,400	3,030,000	287,659,000	62,661,000	106,330,000
January 9	3,117,800	3,110,000	286,912,000	65,402,000	105,971,000
January 16	3,184,650	3,045,000	286,044,000	66,559,000	104,841,000
January 23	3,205,150	3,055,000	285,211,000	68,180,000	103,441,000
January 30	3,194,050	2,995,000	285,384,000	69,540,000	102,078,000
February 6	3,220,750	2,980,000	286,116,000	70,535,000	101,136,000
February 13	3,286,050	3,020,000	286,158,000	73,585,000	100,735,000
February 20	3,295,950	3,065,000	287,574,000	74,798,000	99,391,000
February 27	3,296,100	3,085,000	288,121,000	78,786,000	99,534,000
March 6	3,298,800	2,930,000	289,611,000	80,102,000	99,115,000
March 13	3,372,850	2,985,000	290,613,000	81,236,000	98,964,000
March 20	3,448,150	3,095,000	291,555,000	81,623,000	97,287,000
March 27	3,431,300	3,060,000	293,587,000	*83,538,000	96,591,000
April 3	3,422,350	3,005,000	297,374,000	83,157,000	95,805,000
April 10	3,426,300	3,005,000	297,468,000	82,579,000	94,581,000
April 17	3,463,550	3,055,000	298,932,000	82,703,000	94,472,000
April 24	3,496,400	3,125,000	300,737,000	82,303,000	94,100,000
May 1	*3,497,450	*3,140,000	303,249,000	81,407,000	94,291,000
May 8, 1937	3,489,200	3,065,000	.....	81,469,000	94,874,000
May 9, 1936	2,961,700	2,870,000	314,899,000	73,489,000	98,550,000

*All-time peak.

Summary of Wells Completed in the United States Week Ending May 15, 1937

	Completions	Oil Wells	Gas Wells	Failures	Initial Production	Total, 1937	Total this Date, 1936
Alabama	....	....	....	....	.....	1	2
Arkansas	....	....	....	....	.....	26	34
California	25	21	....	4	11,955	476	336
Colorado	....	....	....	....	.....	6	5
Florida	....	....	....	....	.....	....	....
Illinois	....	....	....	....	.....	20	4
Indiana	....	....	....	....	.....	44	87
Kansas	49	40	2	7	49,195	843	553
Kentucky	....	....	....	....	.....	61	92
Louisiana	24	22	....	2	13,644	283	387
Michigan	33	19	3	11	3,302	303	262
Mississippi	....	....	....	....	.....	6	2
Montana	4	4	....	....	665	38	40
Nebraska	....	....	....	....	.....	....	....
New Mexico	13	13	....	....	22,565	255	183
New York	1	....	1	....	.....	4	....
Ohio	32	11	11	10	294	550	732
Oklahoma	67	51	1	15	46,674	1,137	996
Pennsylvania	1	1	....	....	4	61	....
Texas	289	214	9	66	283,097	5,343	4,514
Utah	....	....	....	....	.....	....	.....
West Virginia	9	....	3	6	.....	319	262
Wyoming	3	2	....	1	800	40	16
Total this week	550	398	30	122	432,195	9,813	8,506
Total last week	615	437	41	137	514,753	....	.....
Total this year	9,813	6,705	818	2,290	8,373,481	....	.....

BUILDING TANKS

Texas storage increased by 2,000,000 barrels

Houston.—Erection of large steel storage in Texas fields and refining centers has lately assumed great proportions, and in the aggregate involves facilities for the handling of about 2,000,000 barrels of crude and refined products.

Humble Pipe Line Company is enlarging its crude storage terminal at Ingleside by adding six 80,000-barrel tanks, and will erect three 80,000-barrel tanks and two 101,000-barrel tanks at its nearby Harbor Island terminal. Pittsburgh-Des Moines Steel Company was given the contracts to furnish the steel and erect these tanks.

Sinclair Refining Company is erecting two 118,000-barrel tanks for use in storing kerosene at its Houston refinery, and is also adding three 80,000-barrel crude stock tanks. The former tanks are 144 feet in diameter, with a height of 40½ feet, and have 7 rings.

The Texas Company is erecting five 80,000-barrel crude tanks and re-building an 118,000-barrel container at its Gates refinery, near Dallas.

Texas-New Mexico Pipe Line Company, successor to The Texas Pipe Line Company in the operation of a crude line from Southeastern New Mexico to Houston, is erecting two 55,000-barrel tanks near its Jal station, and a single tank of the same capacity at Monahans station.

In southeastern New Mexico, Trans-Pecos Pipe Line Company is building a 55,000-barrel tank in the Gravburg, area, Eddy County, and two 55,000-barrel tanks near the Lynch field, Lea County.

To build carbon plant

Oklahoma City.—The Oklahoma corporation commission May 20 will hear petition of General Atlas Carbon Company, subsidiary of Cities Service, for permission to construct a chemical carbon plant near Guymon in the Oklahoma panhandle. Some 5,000,000 cubic feet of natural gas would be consumed by the plant each day. Permission to erect a similar plant was granted in 1936 to another concern, but appeals from major gas producers and pipe line units in the state kept the case suspended for several months.

Comparison of Permits Granted for New Wells

STATE	Week Ending May 15	Total this Mo.	Total this Year	Total this Date Last Year	1936 Year Total
Arkansas	3	12	68	35	103
California	31	98	552	341	1,054
Louisiana	29	98	390	434	1,107
Kansas	60	206	964	657	1,873
Michigan	12	62	344	240	762
Oklahoma	82	222	1,110	1,149	2,594
Texas	474	1,070	6,596	5,112	15,582
Total	691	1,768	10,024	7,968	23,075

Output Still Rising

U. S. PRODUCTION REACHES 3,534,750 BARRELS DAILY

UNITED STATES crude oil production rose to another new all-time peak in the past week, ended May 15, averaging 3,534,750 barrels daily. That was 34,250 barrels a day more than in the previous week and 201,850 barrels a day more than the daily average recommended for this month by the Bureau of Mines.

The increase in production last week was due to larger output in Texas, Oklahoma, Kansas, California, and New Mexico, five of the six leading producing states. The other among the top six, Louisiana, showed a slight decline.

Texas last week averaged 1,405,200 barrels daily, which was 10,800 barrels a day more than in the previous week and 64,400 barrels a day more than the Bureau of Mines recommendation.

Oklahoma output was up 15,500 barrels at 660,650 barrels daily, and exceeded the federal allocation 37,950 barrels daily.

Kansas showed an increase of 12,250 barrels in averaging last week 198,475 barrels a day. That was 11,375 barrels a day more than the federal bureau allocated to the state. California production rose 6000 barrels, reaching 649,000 barrels daily, which was 65,700 barrels a day more than the recommendation.

New Mexico output averaged 113,900 barrels a day, or 1600 barrels a day more than in the previous week, and the state therefore was 14,100 barrels above the recommended daily production.

Louisiana production was off 5100 barrels, at 247,725 barrels daily, having fallen under the Bureau of Mines allocation 1675 barrels.

United States Crude Oil Production

Estimates Compiled by The OIL WEEKLY

DISTRICT OR STATE	Bureau of Mines Recommendation (Daily in May)	ACTUAL PRODUCTION: BARRELS DAILY FOR WEEK ENDING May 15	May 8
TEXAS—			
Texas Panhandle	.....	76,200	80,200
North Texas	.....	70,500	70,600
West Central Texas	.....	32,700	32,900
West Texas	.....	208,800	200,300
East Central Texas	.....	122,300	119,700
East Texas Field	.....	460,700	460,100
South Texas	.....	229,600	230,400
Texas Gulf Coast	.....	204,400	200,200
Total Texas	1,340,800	1,405,200	1,394,400
OKLAHOMA—			
Oklahoma City	.....	169,700	173,300
Seminole Area	.....	130,525	130,825
Crescent	.....	12,900	12,600
Lucien	.....	14,250	14,300
Fitts	.....	96,525	83,450
Edmund	.....	21,000	18,375
Moore	.....	12,225	12,050
Others	.....	203,525	200,250
Total Oklahoma	622,700	660,650	645,150
KANSAS—			
Ritz-Canton	.....	5,475	5,500
Chase	.....	8,350	7,575
Hollow-Nikkel	.....	3,675	3,700
Sedgwick	.....	3,775	3,825
Burrton	.....	16,300	16,525
Lorraine	.....	5,675	6,450
Russell County	.....	31,325	28,500
Silica	.....	21,000	15,450
Others	.....	102,900	98,700
Total Kansas	187,100	198,475	186,225
LOUISIANA—			
North Louisiana	.....	71,525	74,425
South Louisiana	.....	176,200	178,400
Total Louisiana	249,400	247,725	252,825
ARKANSAS	28,500	28,000	27,100
CALIFORNIA—			
Long Beach	.....	61,000	61,000
Santa Fe Springs	.....	45,500	45,000
Huntington Beach	.....	38,000	39,000
Dominguez	.....	24,500	25,000
Inglewood	.....	16,000	14,500
Ventura Avenue	.....	35,500	35,000
Seal Beach	.....	9,500	9,500
Midway-Sunset	.....	72,000	73,000
Elwood	.....	9,000	9,000
Kettleman Hills	.....	81,500	78,500
Mountain View	.....	19,500	19,500
Playa del Rey	.....	9,000	9,000
Others	.....	228,000	418,000
Total California	583,300	649,000	643,000
MOUNTAIN STATES—			
Wyoming	49,000	50,400	52,700
Montana	15,200	16,300	16,800
Colorado	4,800	4,600	4,600
Total Rocky Mountain States	69,000	71,300	74,100
NEW MEXICO	99,800	113,900	112,300
EASTERN STATES	117,400	115,200	118,600
MICHIGAN	34,900	45,300	46,700
Total United States	3,332,900	3,534,750	3,500,500

Burlington running special to A.P.I.

Fort Worth.—Direct through service from Texas points to Colorado Springs for the mid-year meeting of the American Petroleum Institute is announced by the Fort Worth and Denver City Railway (Burlington).

From Houston and other South Texas points the departure may be made at 4 p.m. on the Burlington-Rock Island to Fort Worth and Dallas and from thence to Wichita Falls and Amarillo and Colorado Springs via Fort Worth and Denver City. Departure time from Dallas is 9:50 p.m. and 11:05 p.m. from Fort Worth. From Wichita Falls departure is 1:59 a.m. and from Amarillo 7:30 a.m. with arrival in Colorado Spring at 5.45 p. m. via Colorado and Southern Railway.

Through air-conditioned Pullmans will be operated by this joint service to accommodate oil men attending the A.P.I. meeting and it is urged that reservations be made as early as possible. This service also is available to oil men from connecting lines at places along the Burlington-Rock Island and Fort Worth and Denver City route.

Rodessa wells on Texas side show pressure decline

Shreveport.—Of 53 wells on the Cass County, Texas, side of Rodessa on which bottom hole pressures were taken, 45 showed a decline in pressure during April, only eight showing an increase.

The engineers of The Rodessa operators committee met last week to compile their results of bottom hole pressures taken on the Louisiana side of the field.

OKLAHOMA FIELDS

Fitts field extended to north again.

* * *

Airport field defined in two directions.

* * *

Good shallow sand well at Oklahoma City.

Tulsa.—Another north extension of the Fitts field of Pototoc County took the lead in items of interest from the Tulsa sector of Oklahoma last week.

The extension well was Sinclair Prairie Oil Company's McCarty 1, SE NW NE 22-2n-7e, which came in to flow 137 barrels of oil in one hour while drilling. The extension is to the north on the northeastern border of the field proper. Top of the Hunton lime was found at 3870 feet and the well was drilled to 3904 feet for the flow. The well made 812 barrels of oil in four hours while pulling drill pipe.

Fleetborn Oil Company's Wooley 7-A, SE NE SE 28-2n-7e, was a new producer. Top of the Hunton lime was found at 3213 feet and top of the Sylvan shale at 3491 feet, following which it was acidized with 10,000 gallons. During the first hour the well flowed 169 barrels of oil, and made 98 barrels the second hour through tubing. It established a 24-hour potential of 1189 barrels of oil and 2,020,000 cubic feet of gas.

Magnolia Petroleum Company's Morin 3, SE NW SE 20-2n-7e, topped the Viola lime at 4226 feet and had a hole full of water. It was plugged back to 4125 feet for a test of the Hunton lime and was acidized with 10,000 gallons. The well then flowed 517 barrels of oil in one hour through casing and was shut in. Potential for 24 hours at the well was set at 3140 barrels of oil.

Sinclair Prairie Oil Company's Vivian 1, SE SW NW 22-2n-7e, topped Hunton lime at 3731 feet and drilled to 3770 feet, where it flowed 140 barrels of oil in one hour. The well then made 85 barrels of oil in 20 minutes and went dead after drilling to 3797 feet. It showed about six percent water and will be plugged back.

Shell Petroleum Corporation's Bates 2, NEc NW 26-2n-7e, found Hunton lime at 3570 feet; hit the Viola lime at 4022 feet; and the Bromide sand at 4205 feet and after drilling to 4236 feet, was plugged back to 3960 feet where it was acidized with 15,000 gallons. Following acid treatment the well flowed 655 barrels of oil in one hour through casing. It flowed 737 barrels of oil in 4 hours and 15 minutes through tubing and was shut in to take potential.

Magnolia Petroleum Company's Morin 2, SW NE SE 20-2n-7e, drilled to 4350 feet in the Viola lime and perforated casing between 4060 and 4090 feet, and again between 3773 and 3800 feet. Following acidization with 10,000 gallons, the well made a 24-hour potential of 3139 barrels of oil and had 1,660,000 cubic feet of gas.

The company's Simpson 19, SW SE NE 29-2n-7e, was completed for 329 barrels of oil in 24 hours through tubing. Top of the Cromwell sand was had at 2415 feet and after drilling to a total depth of 2550 feet the well made the flow. It is the second well on the lease to produce from the Cromwell sand.

J. Paul Getty's Masters 3, NWc SE 23-2n-7e, an extension well brought in two weeks ago, made a 24-hour potential of 2596 barrels of oil from a total depth of 3899 feet in the Hunton lime. The well cut 6 percent water the first hour and cut 3½ percent water the fourth hour. Getty's Masters 4, SW SE NW 23-2n-7e, made 5354 barrels of oil on a 24-hour potential gauge from the Hunton lime at 3773 feet to 3920 feet with no water. Gas production was gauged at 2,500,000 cubic feet.

Magnolia Petroleum Company's Norris 11, SE NE SE 28-2n-7e, was a new producer. Top of the Hunton lime was found at 3600 feet; top of the Sylvan shale at 3926 feet and a 24-hour potential of 3454 barrels of oil was established. Gas was estimated at 2,600,000 cubic feet.

Carter Oil Company's Smith 13, SW NW SW 28-2n-7e, found the Hunton lime at 3243 feet and topped the Sylvan shale at 3513 feet. It made 137 barrels of oil and 3,240,000 cubic feet of gas on a 24-hour potential gauge.

In the Jesse pool, Mid-Continent Petroleum Corporation's Statler 2, NE SE SW 2-1n-7e, one of the latest producers in the pool, was opened for eight hours and flowed 100 barrels of oil and was shut in. It had been drilled to 4537 feet and 2½-inch tubing was set at 4088 feet. On an hourly gauge the well made 98 barrels the first hour; 72 barrels the second; 68 the third; 69 the fourth; 63 the fifth and 63 barrels the sixth hour. The finished potential amounted to 1578 barrels of oil.

Northwestern Lincoln County is to have an important wildcat test at Cimmaron Oil Corporation's Frank Ornor 1, CSW SE 31-17n-2e, north of Merrick. Hole will be made by Olson Drilling Company in search of the Wilcox sand. The company holds checkerboard tracts amounting to nearly 600 acres in the area which has been seismographed and given a thorough geological survey.

A wildcat test for southeastern Oklahoma is planned at Wilcox Oil & Gas Company's Newman 1, SWc SE 30-7s-23e, northwest of Idabel in McCurtain County. The test, which is to be drilled with standard tools, is on a faulted structure, and will seek the shallow production as found in the Trinity series of the Cretaceous across the river in the Talco and Sulphur Bluff areas of Texas.

Define Airport Field

The southeast edge of the Airport pool, near Tulsa, was further defined last week as another test was ordered plugged and abandoned. It was Baze & Baze' Hi-Hat Club 1, NWc 2-19n-13e, some 300 feet south of a good producer. Operators plugged the hole after a heavy shot failed to produce any show of oil. Sand, found between 1070 and 1083 feet showed only slight saturation.

Pitts et al's R. R. Wagner 1, S½, lot 1, block 14, Fairland addition, was showing for a light producer following a shot with 90 quarts between 1077 and 1090 feet in sand. The well failed to flow, but is hoped bailing will develop a small producer.

Hausam & Swanda Drilling Company's O'Farrell 1, N½, lot 4, block 2, Fairland addition, looks to become a good producer. Sand was found from 1090 to 1105 feet, and was shot. The well had to be killed to run casing, and put approximately 50 barrels of oil in the tanks during the operation.

The northeast trend was also cut off last week with the failure of Dundee et al's Southerland 1, CN½ NW SW 24-20n-13e. The well had a brown sand from 1013 to 1016 feet and made nearly 100,000 cubic feet of gas. The hole was bottomed at 1150 feet and the machine was being torn down. A sandy lime streak, thought to be the Bartlesville, was passed at 1100 feet.

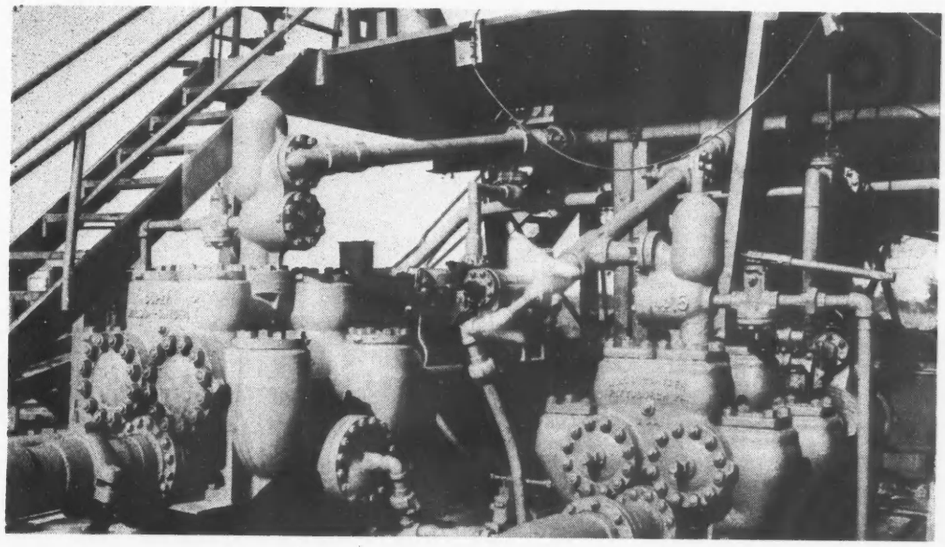
S. A. Moore et al's Cummings 1, in the center of lots 9 and 10, Bloomfield heights addition, near NWc NE 2-19n-13e, is cited as a key test for the field, and is located due southeast of Ricker 1, drilled by Marrs-Hoss Drilling Company in Section 35-20n-13e.

Blackwell Oil & Gas Company's Mount 1, SWc NW 13-4n-6e, northeast of Ada in Pontotoc County, topped the Viola lime at 3132 feet and got a stain of oil from 3180 to 3210 feet. Top of the Dense lime was found at 3210 feet; top of the Dolomite at 3267 feet and the well was drilling ahead at 3325 feet.

Carter Oil Company's Hamilton 1, CWL NE SW 33-4n-9e, near Citra in Hughes County, topped the Hunton lime at 5380 feet and cored from 5381 to 5392 feet. Four feet of lime was recovered bearing a show of gas. It was shut down for a short time for bailer repairs, then drilled ahead to 5435 feet in the Hunton lime. A core from 5395 to 5407 feet yielded seven feet of core

Dad gives Junior a lesson

. . . in DEEP DRILLING



The Daddy of WILSON-SNYDER Slush Pumps — a Super 20 — showed a No. 16, which was standing by, just how to handle the pumping job for drilling the world's deepest producer, which, though producing from 11,630 feet was drilled to a total depth of 12,165 feet.

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bearing a small show of gas and no oil. Another core was taken from 5455 to 5465 feet with a six-inch recovery showing a slight stain of oil and a slight show of gas. It was reaming at 5460 feet with the hole at 5465 feet in the Hunton.

Ark Rovalty Company's Brooks 4, SW SE SW 18-10n-9e, in the North Olympic pool of Okfuskee County, was completed for 100 barrels of oil, production coming from 1902 feet in sand. The Company's Brooks 3, NW NE SW 18-10n-9e, was completed for 75 barrels of oil from 1892 feet in sand.

Olson Oil Company's Junk 2, NW SE SE 32-11n-4e, in the Shawnee pool of Pottawatomie County, was shot with 60 quarts and flowed 160 barrels of oil in 18 hours before the casing collapsed 20 feet off-bottom. Indian States Drilling Company's Junk 1, SW SE SE 32-11n-4e, an old well which was shot and cleaned out, flowed 165 barrels of oil in 24 hours through casing.

Gulf Oil Corporation's Lee 1, NWc SW 36-15n-2e, north of Wellston in Lincoln County, topped the Wilcox sand at 5182 feet and swabbed and flowed 225 barrels of oil in 24 hours, following which it went dead and filled 1500 feet with water.

Possible strike and new wildcats hold interest

Ardmore.—Southern Oklahoma took on a little more life last week as possibility of opening a new pool appeared in the offing and several new wildcat ventures were recorded.

Oil men are watching a bailing test near the old Robberson pool of Garvin County, where Patsy Oil Company is drilling Derdyn 2, SW SE SE 17-1n-3w. The test is thought to be in the Simpson sand, with casing cemented at 2828 feet. Nearby, Carter Oil Company has made location for Potts 1, CE½ SE NW 36-1n-3w.

Tussy Extended

Tussy field was extended southeast last week by Hefner & Bray's Perkins 2, SEc 4-1s-3w, when it flowed 100 barrels of oil from 2300 feet. It had made a small flow earlier in the week, and after swabbing, started flowing. It is estimated good for about 125 barrels of oil daily after having been drilled to 2778 feet and cementing 8-inch casing at 2545 feet.

Carter Oil Company et al's Harley Community 1, CNE NE 24-2s-4w, Milroy sector, Stephens County, topped the Viola lime at 5152 feet; cored from 5192 to 5202 feet, and recovered two feet of Viola lime with a show of gas and heavy black oil. Nine-inch tubing was run and plugs were to have been drilled late in the week.

Indian Territory Illuminating Oil Company and Foster Minerals Corporation's Hatler 1, CSW NE 32-2s-17w, south of Frederick in Tillman County, was producing 110 barrels of oil daily, making about 250 barrels of fluid gross on a pumping test after plugging back and perforating casing at 4218½ feet. During the last 24 hours the well made 150 barrels of oil and 168 barrels of water. Operators ran a pressure gauge and were planning to use a sand at 3800 feet for salt water disposal.

A new wildcat test for southern Oklahoma is that of M. A. Neff and others, northwest of Madill in Marshall County. The test will be drilled about three miles east and one mile south of Paul Robb et al's Vittitoe 1, CNE SE 11-5s-4e, near Simpson, which has been shut down for nearly two years at 5461 feet. It is stated the new try will be for deep production.

Carter County is to have another chance to prove productivity soon, with Shell Petroleum Corporation planning a test in the Brock area, southeastern part of the county. Located on a block in Section 30-5s-1e, the test may go to 5000 feet. No other companies are supporting the venture. The nearest tests are those in the old shallow Brock field, two miles away.

Field work increases

Tulsa.—Field work in Oklahoma gave indication of hitting its stride with 82 wells started and 70 completed. Completions included 51 oil producers, initial output of 46,674 barrels, one gas well, 15 dry holes and three abandoned locations. Pontotoc County drew 19 of the wells started. There were 8 in Seminole County, 7 in Osage County, 6 each for Carter and Noble Counties, 4 each for Garvin and Tulsa Counties, 3 each in Creek, Hughes, Logan Counties, 2 each in Cleveland, Okfuskee and Pottawatomie Counties, 1 each in Comanche, Cotton, Grady, Jefferson, Lincoln, Okmulgee, Pawnee, Payne Counties.

OKLAHOMA Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
CARTER COUNTY—		
Gulf et al, Woodworth 1, nw nw ne 20-3s-4w	*	3117
Magnolia, Power 3, sw ne nw 4-2s-3w	5	4350
Shell, Keck 20, ne nw ne 5-4s-3w (pb 1102)	20	1121
COMANCHE COUNTY—		
Ashcraft & Palmer, Fee 1, nw sw sw 28-2n-10w (otd 941)	*	1045
CREEK COUNTY—		
Spartin, Lee 13, cn¼ se ne 12-18n-11e	5	1725
Bruin Oil, Harjo 2, ne ne sw 27-14n-10e	35	3310
Sinclair Prairie, Shaffer 2, nw se sw 3-17n-7e (otd 2606)	15	2615
Fred Kroger, Moore 1, ne ne nw 29-18n-9e	*	3245
GARFIELD COUNTY—		
Arab Oil, Harkendorf 1, ne ne ne 34-20n-3w	*	6074
GRADY COUNTY—		
McCasland, Horton 3, ne sw nw 8-3n-5w (pb 2779)	90	2794
HUGHES COUNTY—		
Mid-Continent, Elizabeth 2, nw ne sw 20-7n-8e	125	2924
JEFFERSON COUNTY—		
Bridwell, Wohlgemuth 13, nw ne nw 30-6s-5w	20	1531
KAY COUNTY—		
C. H. Leonard, Smith 4, sw nw ne 28-27n-1e (pb 2228)	¶¼	2935
KIOWA COUNTY—		
Goldband Oil, Parrish 1, se se nw 3-6n-15w (otd 310)	*	715
LOGAN COUNTY—		
Sinclair Prairie, Shaffer 3, ne se sw 28-17n-4w	¶5½ & 2187	6534
Mid-Continent, Campbell 6, ne se se 33-17n-4w	272	6120
Stanolind-Amerada, Pfieffer 6, sw nw sw 33-20n-2w	6889	5073
MUSKOGEE COUNTY—		
J. R. Parks, Woodward 3, sw sw sw 11-14n-17e	*	2225
Jackson, Rousy 1, se sw sw 29-15n-17e	lcn.	abd.
NOBLE COUNTY—		
Sinclair Prairie, Glockler 1, ne ne se 32-20n-2w	1446	5120
Sun Oil, Pfieffer 3, nw nw sw 33-20n-2w	¶1¼ & 1351	5106
OKFUSKEE COUNTY—		
Blackwell, Lehmer "B" 2, se sw nw 18-10n-9e (pb 1908)	52	1913
Okla. Oil Corp., Ott 4, nw nw nw 19-10n-9e	55	1900
Sinclair Prairie, Fisher 9, ne sw sw 19-10n-9e	144	1861
Chapman, F. Williams 10, nw se nw 30-10n-9e (pb 1775)	7	1807
O'Dell & Henson, Yahola 1-A, ne nw se 9-12n-11e	*	2144
OKLAHOMA COUNTY—		
British American, Baird 1-A, nw ne nw 26-12n-3w	220	6471
Anderson & Kerr, Dawson 1, sw ne se 27-12n-3w	1619	6528
Kaye Dawson 1, sw nw se 27-12n-3w	457	6549
Sunray and Phillips, State 13, sw nw ne 27-12n-3w	4862	6516
Transwestern Oil, Church 1, ne ne ne 30-13n-3w (otd 6772)	179	6796
OKMULGEE COUNTY—		
J. Wise, Berryhill 1-A, nw sw sw 10-12n-12e	*	3248
Sheridan, Minshall 1-A, se sw nw 9-15n-11e	*	3034
Misener, Larney 6-A, csl ne ne 28-15n-14e	2	1665
OSAGE COUNTY—		
Pure Oil 3, se ne ne 19-22n-10e (otd 1883)	64	1917
Sills et al, 14, se se se 32-23n-11e	*	1975
PONTOTOC COUNTY—		
Continental, Helm 1-A, nw sw se 2-1n-7e (otd 4564) (pb 4640)	96	4676
Delaney et al, Davis 1, nw se se 2-1n-7e (pb 4085)	¶8¼ & 25	4608
Hager, Bautson 1, sw sw se 19-2n-4e	lcn.	abd.
Phillips, Norris 16, sw se sw 25-2n-6e	3837	3745
Arrow, Lewis 1, se sw se 19-2n-7e	865	4376
Fleetborn, Lewis 1, se se sw 19-2n-7e	¶2½ & 1870	4347
Amerada, Wooley 8, ne nw sw 22-2n-7e	¶3 & 2705	4438
Wooley 10, sw sw ne 22-2n-7e	¶1¾ & 2629	3836
Moore, Inrram 1, nw se ne 22-2n-7e	¶3¼ & 4214	3880
Crosbie, Burris 1-C, ne se nw 27-2n-7e (otd 1757)	936	2558
Magnolia, Metropolitan Life 31, se nw sw 27-2n-7e	¶3½ & 104	3497
Bishop Oil, Simpson 1-A, nw sw nw 28-2n-7e	¶3¼ & 3050	3580
Stahl Pet., Dennis 1-B, sw ne nw 28-2n-7e	¶1¼ & 2157	3632
Moore, Woodroff 2-A, nw ne se 29-2n-7e	216	2555
Woodroff 6-B, se ne se 29-2n-6e	lcn.	abd.
G. Smith 8-A, se ne nw 31-2n 7e	¶1 & 427	3530
Perrine, J. Roberts 1, nw nw sw 31-5n-5e (otd 2165)	2	2315
Mary "F" Oil, G. White 3, cwl e½ nw se 16-5n-8e	*	1231
POTTAWATOMIE COUNTY—		
Gulf, Wise 2, sw nw se 13-7n-4e (pb 4147)	70	4155
I. T. I. O., McGee 1, se ne nw 26-7n-4e (otd 4105)	315	4194
Sinclair Prairie, Deathridge 6, ne nw nw 28-7n-4e	588	4197
SEMINOLE COUNTY—		
Phillips & Smith, Cravins 3, sw sw sw 13-5n-5e	93	2550
Lynch, Doner 2, se sw ne 24-5n-5e	55	2714
Texhoma Oil, Fleet 1, ne ne sw 24-5n-5e	45	2745
W. B. Pine, Williams 1, se ne ne 22-6n-6e	507	2355
Malernee, Flowers 2, sw se sw 29-7n-6e	70	2990
Sinclair Prairie, Blair 1, ne nw nw 32-7n-6e	*	2985
Rogers et al, Coody 1, sw se sw 9-9n-7e	¶6 & 195	3445
Deep Rock, Lozier 3, ne sw nw 20-9n-7e (otd 3516) (pb 4085)	40	4097
Carter, Black 1, cne sw 14-10n-6e (otd 4140)	1438	4157
STEPHENS COUNTY—		
Lundy, Calmes 1, nw sw se 35-1n-4w	*	4012
Mudge Oil, Woods 47, cnl sw nw 26-1s-5w	4	725
TULSA COUNTY—		
Gilmot Oil, Johnson 1, cne nw 18-19n-12e (pb 2078)	*	2204
WAGONER COUNTY—		
Sands Pet., Sarty 1-A, nw ne sw 8-17n-16e	*	1024

*Failures; †Junked; ¶Million cu. ft. gas.

Shallow Oklahoma City well

Oklahoma City.—Highlights of the week in the Oklahoma City area were the revival of interest in shallow sands in the Oklahoma City field, and a huge potential made by a well in the Moore field.

Considerable attention is being accorded the east side of the Oklahoma City field, where an old shallow producing area is showing for good production. The well there is Indian Territory Illuminating Oil Company's Theimer 2, NW SW NE 12-11n-3w. It was plugged back after deep sands were exhausted, and found a shallow sand between 4400 and 4500 feet. After casing was perforated, it made 2612 barrels of oil during the first 24 hours opened, accompanied by about 30,000,000 cubic feet of gas. The following day the well made 1556 barrels of oil and 32,900,000 cubic feet of gas through a 1¾-inch choke. Production was reportedly cutting about 2 percent salt water.

15,000-Barrel Well

In the Moore pool of Cleveland County, Sinclair Prairie Oil Company's Bagby 3, SW SE NW 27-10n-2w, established a 24-hour potential of 15,491 barrels of oil, from a depth of 7312 feet. Top of the Simpson sand was had at 7065 feet, and after drilling to 7314 feet in the same formation, the well was acidized with 5000 gallons. The first hour it flowed 783 barrels of oil and 5,700,000 cubic feet of gas; 611 barrels of oil and 5,300,000 cubic feet of gas the second hour, and during the third hour, flowed 553 barrels of oil and made another 5,300,000 cubic feet of gas. Gas production jumped to 20,500,000 cubic feet during the fourth hour with oil production at 531 barrels.

Sinclair Prairie's Bagby 4, SE SW NW 27-10n-2w, bailed down 2100 feet and made one head flow of oil from 7278 feet in the Wilcox sand. After cleaning out the well flowed 175 barrels of oil an hour from the sand and ran tubing to acidize. On the initial test, the well made 838 barrels of oil in four hours.

Ohio Oil Company's State 1, SWc 13-23n-3w, northwest of the Billings pool, Garfield County, found the Dense lime at 4610 feet, and the Dolomite at 4618 feet. Wilcox sand was at topped at 4629 feet, and cored from 4631 to 4637 feet. Recovery consisted of five feet of hard tight Dolomitic sand with an odor of gas. The well took another core from 4637 to 4639 feet and recovered 20 inches of hard tight sand with a very slight show of green streaks bearing an odor of gas. The well drilled from 4639 to 4646 feet, and cored again from 4646½ to 4651½ feet, recovering four feet of hard gray sand with no oil showing. A drill stem test was taken and packer set at 4591 feet, and the well was opened for 20 minutes, during which time it showed eight stands of mud, the last three or four showing a little salt water with no gas or oil. The last core was taken from 4668 feet and recovery consisted of four feet of white sand with a salty taste. It will drill deeper.

The Texas Company's Denny 5, NE NW SE 33-17n-4w, in the Crescent pool of Logan County, entered the first Wilcox sand at 6288 feet and cased it at 6338 feet. Top of the Dense was found at 6600 feet, and of the Dolomite at 6612 feet. The second Wilcox sand was picked up at 6704 feet and drilled to 6723 feet where water began showing. The well was plugged back so the casing can be perforated and the Hunton lime acidized.

Langston Activity

Ohio Oil Company's Knight 1, SE NE SW 12-17n-1w, in the Langston area of Logan County, topped the Wilcox sand at 5032 feet and cored from 5050 to 5056 feet, recovering five feet of hard tight sand with streaks of green shale and dead oil with a slight odor. Seven-inch casing was set at 4972 feet. It may be tested after the plugs are drilled.

Amerada Petroleum Corporation and Stanolind Oil & Gas Company's Fouts 2, SE NE NE 14-17n-1w, was shot with 100 quarts between 5080 and 5120 feet. Following the shot, the well made one small flow and bridged at 5024 feet. After this was cleaned out, the well flowed 184 barrels of oil in 24 hours. Two and one-half-inch tubing was run at 5084 feet, and the well flowed 105 barrels of oil in eight hours, and later established a 24-hour potential of 338.70 barrels of oil.

Eason Oil Company's Sisters 1, SWc 24-17n-1w, which promised a south extension for the Langston pool, cored white, salty Wilcox sand last week. The core from the first Wilcox sand was between 5400 and 5414 feet and showed a white sand at 5402 feet. It is now drilling below 5480 feet in Dolomite.

Another salt water well in the county was Carter Oil Company and Gulf Oil Corporation's Miller 4, NWc SE 28-17n-4w, in the Crescent pool. The salt water was encountered at around 6332 feet in the second Wilcox sand. It was to be plugged back for a test of the upper sand.

Ohio Oil Company was continuing to test at Rankin 3, NW SE SW 31-14n-3w, in the Edmond pool of Oklahoma County. It made 418 barrels of oil in 24 hours on gas lift from 6710 feet in the Wilcox sand, and finally established a potential of 836.16 barrels of oil and 2,500,000 cubic feet of gas, production coming from 6710.

Olson Oil Company et al's Harkins 1, SWc SE 20-13n-3w, in the Britton pool of Oklahoma County, was completed for a 24-hour potential of 3024 barrels of oil, making 504 barrels on a four-hour test. It is at a total depth of 6704 feet in Dolomite.

Leon Pepperberg killed in automobile accident

Dalls.—Leon J. Pepperberg, Dallas consulting geologist, was fatally injured May 13 in an automobile smashup while enroute to his home. He was a native of Plattsmouth, Nebraska, and was awarded the master's degree by the University of Nebraska in 1908. Prior to receiving this degree he was with the field division of the Nebraska Geological Survey, and the United States Geological Survey, having authored several bulletins published by the latter. He was geologist for the Southern Pacific Railroad in 1910-1912, and in 1917 became identified with Chas. J. Wrightsman as manager of exploration work in the Mid-Continent. Pepperberg moved to Dallas in 1919 to engage in consulting work, and in 1927 became consulting geologist for the Columbia Engineering Management Corporation, with headquarters in New York City. He returned to Dallas in 1931 to resume his consulting practice. Survivors include his wife and a son, Leon E. Pepperberg.

LABOR SITUATION

Additional employes vote against national unions

Houston.—As union leaders last week claimed having made important progress in organizing workers in the oil industry, there was further evidence of unwillingness of oil company employees to tie up with national organizations.

Following similar action previously by Humble Oil & Refining Company refinery workers at Baytown, Texas, that company's employees at its Ingleside refinery near Corpus Christi, Texas, last week voted 284 to 7 for an employees' federation. They thereby rebuffed the Committee for Industrial Organization, which has been seeking to serve as their bargaining agency under the Wagner labor act.

Along with other employees of companies of the "Standard Oil" group, the Humble company employees recently were left without union organization, when the company withdrew from the "joint conference" plan under which the company-employee relations had been carried on. The withdrawal of the company followed the upholding of the Wagner act by the Supreme Court.

Company Union Favored

Like the Humble company workers at Baytown and Ingleside, the refinery workers of Standard Oil Company of Louisiana last week voted almost unanimously to continue their existing employees' representation plan, in preference to an affiliation with any national labor organization. While 2742 workers voted for continuance of the present plan, there were 39 votes against continuance, including 10 that favored affiliation with the Committee for Industrial Organization and 4 favoring affiliation with the American Federation of Labor.

The example set by the Humble company refinery employees at Baytown was followed also by the 175 employees of the Eastern States Petroleum Company refinery at Houston. In a ratio of 3 to 1, this independent company's employees voted to retain the employees' representation plan which has been in effect for nearly a year. The vote meant that collective bargaining between the workers and the company will continue without affiliation of the workers with any national labor union.

Differences between the Eastern States Petroleum Company and its employees are submitted to a committee of 10 employees, who act as a board of arbitration to hear both sides of the question and to decide it. The committee then offers its findings to the management, and in that way every difference that has arisen has been settled.

C.I.O. Extends Drive

Meanwhile, a representative of the C.I.O. left Washington for New Jersey, to attempt union organization of refineries of the Standard Oil Company of New Jersey, in the face of the above mentioned developments at the refineries of the Humble and Standard of Louisiana companies, both of which are subsidiaries of the Standard Oil Company of New Jersey.

KANSAS FIELDS

New Lansing lime field in Barton County.

* * *

Bloomer and Guldner pools extended.

* * *

Silica, Ellinwood and Peter may be linked.

Wichita.—Operators in the Sunflower state came through with some interesting developments last week, including the opening of one new pool; extension of established pools in Rice and Ellsworth counties and the linking of two pools in Barton County.

New Barton Field

The new pool was opened in the Chaflin area of Barton County by C. L. Price et al's Kraft 1, SW NW NE 10-17s-11w, northwest of the prolific Bloomer pool about five miles, and promises to be a rival of that area. The well started by making only one flow of 32 barrels of oil from the Lansing lime at 3236 feet following acidization with 3000 gallons. It was drilled ahead, topping the Siliceous lime at 3283 feet. After drilling to 3288 feet in the same formation, it had a hole full of oil in three hours. A production test was to be taken shortly.

Many Kansas oil men were still watching the possibility of Wilcox sand production at M. D. Scrugg's Darwin Bolton 1, SEc NW 1-8s-7w, south of Geneseo in Rice County. The well bailed after filling 400 feet with fluid, 150 feet of which was water after drilling out the cement plug at 3191 feet. Operators were not certain as to the source of the water encroachment. Completion of the well in the Wilcox would mark the first commercial production from the formation on the central Kansas uplift. At any rate, the well is an extensioner, pushing the producing limits of the Geneseo pool one mile to the southeast. When drilling stopped at 3214 feet in the Siliceous lime, 2500 feet of oil rose in the hole in nine hours. Water, supposedly from the Simpson, decided operators to case off the formation and drill ahead to the Siliceous lime.

Yarnell, Spencer & Carlson's Gemeinhardt 1, NWc SW 31-17s-10w, was completed as the biggest producer in the Ellsworth County portion of the Bloomer pool of Barton County, and extended production one-quarter mile southeast. Production amounted to 1021 barrels of oil in six hours, coming from the Kansas City lime at 3049 feet, giving the well a potential of 4085 barrels of oil. Previous largest producer in the pool made some 1000 barrels of oil less than the new well. It was acidized with 5000 gallons.

Gulf Oil Corporation's Grizzell 4, SE SW NW 31-17s-10w, in the offsetting lease, was completed for 1930 barrels of oil from the Siliceous lime following acidization at 3250 feet. It is the farthest east well in the field and is reported making some water.

Guldner Carried Mile West

The Guldner pool of Rice County was extended one mile to the west last week as Empire Oil & Refining Company's Bredfiedt 1, SWc 7-18s-9w, began showing for a producer from the Siliceous lime. The cement plug was drilled out at 3240 feet and the hole filled 900 feet with oil in eight hours. Top of the formation was had at 3225 feet. It pumped 110 barrels of oil in 10½ hours, natural, with no water. Operators may acidize.

What operators hope will be the connecting link between the Silica, Ellinwood and Peter pools of Barton County, is Stanolind Oil & Gas Company's Kowalsky 1, NWc NE 11-20s-11w, southeast of Ellinwood. The well topped the Siliceous lime at 3277 feet and recovered a core saturated with oil. It was carried to 3280 feet, and six-inch casing was run to 3277 feet preparatory to drilling in with cable tools. The test is two and one-half miles northeast of production in the Ellinwood pool, and with the exception of one well, is an exclusive property of Stanolind.

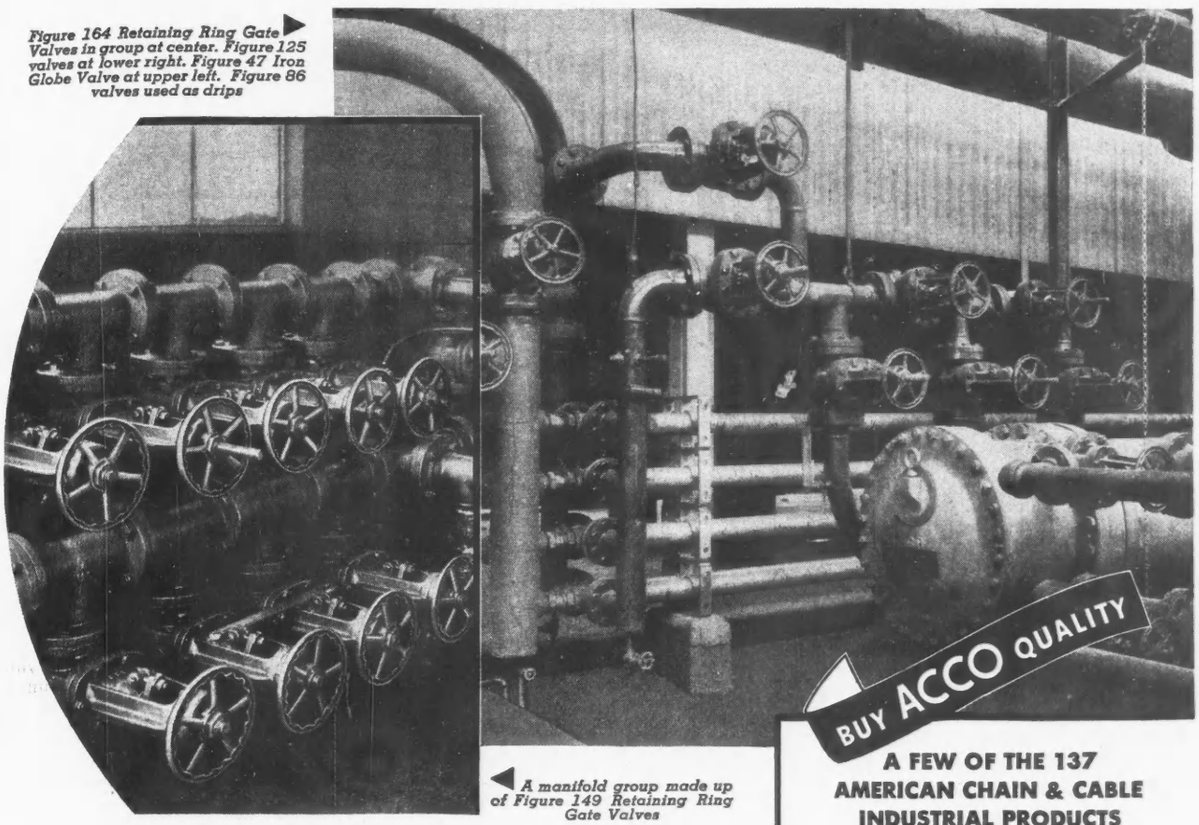
Deep Rock Oil Corporation et al's Baumer 2, NE NW NW 27-11s-17w, in the Bemis pool of Ellis County, was completed for a potential of 2938 bar-

KANSAS Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
BARTON COUNTY—		
Empire, Demel 2, ce¼ e½ sw 9-16s-13w	875	3388
Yarnell & Carlson, Bloomer 4 nw ne nw 36-17s-11w	907	3316
BUTLER COUNTY—		
Saco Oil, Brainerd "B" 3, ce½ e½ sw 35-24s-3e	*	2801
Richmond Drlg., Getter 2, cn½ n½ sw 17-27s-6e	45	2755
CHAUTAUQUA COUNTY—		
Griffin & Bell, Oliver 8, csl se sw 1-32s-10e (otd 1664)	50	2294
Seifken et al, Burton 1, cnl nw 34-33s-12e	¶1	1005
COWLEY COUNTY—		
McKnabb, Charles 1, ne ne se 20-32s-5e	¶1/10	710
Stevens County O&G, Olds 1, nw nw nw 9-33s-7e	35	2874
ELLIS COUNTY—		
Aylward et al, Meis 1, nw nw nw 6-12s-17w	1111	3690
Murphy Oil, Weisner 1, se se sw 12-14s-19w	*	3863
Wakefield, Putnam Mortgage 1, se se nw 32-15s-17w	*	3484
GREENWOOD COUNTY—		
Ohio Oil, Schwab 1, se sw se 9-24s-10e	155	2766
Shull Drlg, Cannon 1, ne se ne 23-25s-12e	*	1865
Lucille Oil, Wiersching 1, cnw se 23-26s-9e	*	2304
MARION COUNTY—		
Ryan & Herschell, Fike 1, ne ne ne 28-17s-4e	*	350
McPHERSON COUNTY—		
Derby, Arnold 4, nw nw sw 16-21s-1w (pb 3329)	691	3330
Dickey et al, Goering 8, ne ne se 17-21s-1w	988	3348
Lauck & Moncrief, Krehbiel 1, se se sw 27-21s-2w	*	3665
RENO COUNTY—		
Ledo Oil, Neufeldt 4, sw ne nw 12-23s-4w	1513	3420
Torry & Feaster, Schroeder 1, se se se 1-23s-7w	lcn.	abd.
Sinclair Prairie, Collins 4, ne sw sw 3-24s-4w	291	3359
Sinclair Prairie, Kaugman 2, se se sw 18-24s-4w	1394	3393
Barnsdall, Westfall "A" 4, ne nw se 19-24s-4w	1265	3384
Westfall "A" 5, nw nw se 19-24s-4w	1341	3385
Westfall "B" 3, nw ne se 19-24s-4w	1454	3386
Ohio Oil, Lawson 4, sw ne nw 15-26s-9w	1433	4149
RICE COUNTY—		
Republic O&G, Wendell 8, se se ne 32-19s-10w	2140	3304
Tatlock, Drew 6, se nw sw 5-20s-10w	lcn.	abd.
Stanolind, Specht 15, sw nw se 6-20s-10w	1811	3325
Tatlock, J. Berscheidt "A" 5, sw se sw 6-20s-10w	1776	3286
Bayer 1, nw ne nw 7-20s-10w	1584	3304
Atlantic, Hughes 2, sw se se 6-21s-7w	3703	3333
Hughes "B" 2, sw sw se 6-21s-7w	1083	3342
Douglass O&G, Theede 9, nw ne sw 9-21s-7w	1247	3372
Sage & Yankey, Gossman 3, se sw nw 9-21s-7w	3602	3374
Garden & Haines, Strange 1, ne ne ne 16-21s-7w (pb 3420)	15	3445
RUSH COUNTY—		
Texas Co., G. Wagner 1, ne ne ne 22-16s-16w (pb 3257)	250	3274
Morgan & Flynn, Koril "B" 3, cn½ sw 23-18s-16w	¶45 & 517	3550
RUSSELL COUNTY—		
Equity Gas, Gross 3, nw sw ne 31-13s-12w	624	3097
J. J. Hall, Guy Miller 6, se nw ne 31-14s-13w	1023	2950
A. H. Witt, Witt 2, ne nw se 3-14s-15w	2440	2890
Coralena Oil, L. Sellens 2, cn½ n½ nw 17-15s-13w	949	2861
Empire, Sellens 4, ne nw sw 30-15s-13w	2528	3288
W. I. Southern, Inc., Boomhower "A" 5, ne se ne 30-15s-13w	1692	3249
Michaelis 6, sw ne nw 31-15s-13w	2589	3277
Gulf, Michaelis 3, ne nw sw 32-15s-13w	1626	3348
W. I. Southern, Inc, Boomhower 7, se sw nw 32-15s-13w	640	3314
STAFFORD COUNTY—		
Stanolind, Heyen "B" 7, ne ne ne 31-22s-11w	1094	3568
Atlantic & Phillips, McNaughton 1, nw ne ne 27-24s-13w	2379	4109
SUMNER COUNTY—		
Texas Co., E. Carr 4, nw nw ne 5-32s-1w	315	3703
WOODSON COUNTY—		
McGinnis, Weide 4, ne se se 31-23s-15e (pb 1585)	20	1623

*Failures; †Junked; ¶Million cu. ft. gas.

Figure 164 Retaining Ring Gate Valves in group at center. Figure 125 valves at lower right. Figure 47 Iron Globe Valve at upper left. Figure 86 valves used as drips



A manifold group made up of Figure 149 Retaining Ring Gate Valves

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rels of oil, production coming from the Siliceous lime at 3482 feet. Baumer 2 is an offset to British American Oil Producing Company's Bemis 8, completed for 2864 barrels of oil from the Siliceous lime at 3432 feet. Baumer 1 was recently completed for 3005 barrels of oil, the largest well in Ellis County.

Ellis Has Simpson Show

The first test in Ellis County to make a favorable showing in the Simpson sand is Sinclair Prairie Oil Company's Romine 1, SWc 7-11s-16w, northeast diagonal producer to the discovery well in the Cress pool. Romine 1 filled 2850 feet with oil from the Simpson sand which it topped at 3299 feet. Top of the Siliceous lime was found at 3305 feet and it was drilled to a total depth of 3307 feet. No increase in production was reported from the Siliceous. The discovery well, drilled by Lario Oil & Gas Company, was completed for 2290 barrels of oil from the Siliceous lime.

Darby Petroleum Corporation's Solomon 1, NWc NE 33-11s-19w, a southeast diagonal offset to the discovery producer of the Solomon pool, was completed for 603 barrels of oil natural from the Siliceous lime at 3631 feet. It is slightly better than the discovery well which was completed for 600 barrels of oil.

Large Dreiling Well

Wolf Creek Oil Company's Bemis 1, SWc NW 4-12s-17w, in the Dreiling extension of the old Shutts pool of Ellis County, was completed for 2851 barrels of oil natural from the Siliceous lime at 3567 feet, making it the largest well in the area. The potential was based on a 10-hour flow, during which time the well made 1251 barrels of oil. Lack of pipe line facilities made further testing impossible.

Phillips Petroleum Company's Bertha 1, southeast diagonal offset to the new producer, swabbed 208 barrels of oil in 18 hours from the Siliceous lime at 3520 feet.

Empire Oil & Refining Company's Neiland 1, SEc NE 26-25s-14w, an offset to the discovery well in the Jordan pool of Stafford County, pumped 1128 barrels of oil in eight hours from the Lansing lime at 3836 feet. Initial production for the discovery well was 2025 barrels of oil, which was drilled by Empire and Atlantic Refining Company. The new well, in all probability, will be larger than the initial producer.

Ohio Oil Company's Schwab 1, SEc SW SE 9-24s-10e, some 10 miles northeast of Eureka in Greenwood County, made a potential of only three barrels of oil and 100 barrels of water from the Viola lime at 2763 feet. The well has been undergoing extensive pumping tests which have tended to increase rather than decrease the water production.

W. G. Buffington et al's Buffington 1, in Section 15-35s-2e, in the North Vernon area of Sumner County, was testing a show of oil in the Bartlesville sand last week. The oil was encountered at 3407 feet, but amount of the show was not immediately determined.

Transwestern Oil Company's McKee 1, NWc SE 5-32s-1w, one of the farthest south tests in the Wellington pool, made one bailer of oil and one bailer of water from the chat, and was being acidized with 4000 gallons.

NORTH AND WEST TEXAS

New discoveries in Upton and Howard Counties.

* * *

Canyon section well to test lower zone.

* * *

Archer County wildcat is promising.

San Angelo.—Discovery of new oil areas from lime horizon in Upton and Howard Counties were made by independents the past week. Opening of considerable territory for development about 2½ miles north and also east of nearest production in the McCamey area, Upton County, looked promising after Basin Oil Properties, Inc., (was R. H. Henderson's) A. J. Herrington 1, near SE NW SE Section 4, Block 3½, filled 1700 feet with oil from 10 feet of soft dolomite topped at 2815 feet, or 296 feet above sea level. Pipe was cemented at 2680 feet. Production test was due to be made late last week before using acid. Standard Oil Company of Texas farmed out Section 4 last August for the drilling of a 3500-foot test, but retained 1/16 over-riding royalty and mineral rights below 3500 feet.

Majors hold lease on the bulk of the acreage surrounding the Herrington 640-acre drilling site. The area has been conceded to have oil possibilities since Gulf Oil Corporation's Sanger 1, near center north line Section 14, Block 3, showed free oil when tested at intervals below 2743 feet while carrying 6⅝-inch casing, which was finally set at 3104 feet. This wildcat was abandoned with hole full of water at 3540-3596 feet in November, 1926, having logged top of lime at 2684 feet, or 424 feet above sea level. Use of acid for converting non-commercial wells into prolific oil producers in the McCamey area was not practiced in 1926. Henderson et al's Reese 1, NW¼ Section 16, Block 3½, located northwest of the new strike, showed free oil in the same lime section, but drilled into water at 3079 feet, or 340 feet sub-sea. It failed to make a commercial producer when plugged back to 2900 feet for nitro shot and acid.

New Howard County Pool

Moore Bros. Corporation, Midland, active wildcatting unit in the district for a long period, has established a new pool for eastern Howard County and between the Denman-Iatan and Chalk fields. The firm's Texas Pacific Land Trust 1, NEc Section 33, Block 30, T-1-S, pumped 2 barrels oil hourly after using 1500 gallons of acid at 2735 feet, with an elevation of 2301 feet. Deeper drilling yielded more saturation at 2750-2765 feet, and the well was carrying 1800 feet oil in hole while drilling at 2875 feet. Previous prospecting in the area has netted favorable showings.

Grisham-Hunter Corporation's C. Montgomery 1-A, a mile northeast of Toyah, Reeves County, encountered water in deepening from 3971 feet, where free oil with sufficient gas to temporarily lodge tools, to 4065 feet, or 1174 feet below sea level. Hole has been plugged back to 4058 feet for nitro shot in Delaware lime and sand section topped at 3852 feet. In western Ward County, L. F. White et al's Monroe-Rector 1, located in east corner of Section 3, Block 1, and a mile east of an old wildcat oil producer in the Delaware zone, logged favorable oil and gas showings in the Delaware below 4670 feet before reaching water at 4700 feet, and has plugged back to 4696 feet for 260-quart nitro shot.

Third prospective producer for the Mason field, Loving County's second producing area from the Delaware, was at a decisive stage late last week, with a small volume of oil and salt water showing from the upper section of the sand series topped at 3870 feet. Stanolind Oil & Gas Company's M. Kyle 1, south offset to the discovery well, cored to 3925 feet and is waiting shot with very little free oil in the hole. It is slightly higher on structure than the original producer, and about level with the west offset to the latter. Appearance of water is generally discounted, as Mason Oil Company's discovery showed little water above the main pay. Nearby lease owners are preparing to wage an active development program on comparatively high priced acreage purchased since the first well was completed last January. Outpost tests are underway to the west and northwest.

Gaines County

Next important completion due from the north portion of the Permian Basin is Shell Petroleum Corporation's M. J. Mann 1, east offset to the discovery oil well on the Seminole structure, Gaines County. Dry gas found in the Yates sand and also in the big lime gave

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By using Galvanized Steel, Admiralty Brass, Commercial Bronze, Enduro (Stainless Steel) or Nickel wire we are able to produce a Layne Screen that offers greatest resistance to specific acidic conditions. These wires are drawn and annealed to our specifications in our patented shape—slightly tapered toward the bottom.

Such precise manufacture is further assurance of longer life for Layne Wire Wrapped Screen.

The LAYNE & BOWLER COMPANY
Houston, Texas

THE LAYNE WIRE WRAPPED SCREEN

trouble to the rotary crews in drilling to 5002 feet. Seven-inch pipe was cemented at 4912 feet, and gas broke through behind the casing from the Yates zone. Plugs were due to be drilled late last week to deepen and complete. Amerada Petroleum Corporation is seeking to extend production 4-1/3 miles southeast in starting operations on the A. Fasken 400-acre short term lease, C NW NW Section 160, Block G, W. T. Ry. Survey. It is 1 mile southeast of Seminole townsite. In southwest Gaines County, W. M. Blevins, Tom N. Sloan et al sold Shell Petroleum Corporation an undivided 50 percent interest in W. W. Barber 1, NW NE NE Section 19, Block A-28, and the 40-acre site, and full interest in 600 acres in adjoining sections for $26,500 cash, subject to completion of a 5000-foot drilling contract. Shell Petroleum Corporation also paid $4500 cash for ¾ interest in NW Section 20. This prospect is 6 miles north of a small oil producer in process of completion across the border in New Mexico. Amon G. Carter and Continental Oil Company's Wasson 1, wildcat prospect in the north portion of Gaines County, was drilling near the 3800-foot level after casing offset troublesome air pockets and gas above 3092 feet.

Resumption of development near Cochran County's single oil producer is involved in purchase by M. S. Ingleright, and South Gulf Oil Corporation, of lease from J. C. Duke Estate et al on Labor 14, League 55, Oldham County School Lands, embracing 178.2 acres. This deal is reported to involve a cash bonus of $100 per acre, and $325 per acre payable from production, plus an obligation to start a test by July 1. The tract adjoins the discovery well site on the west. Shell Petroleum Corporation is reported to have paid $14,400 cash for commercial lease on 800 acres out of the Slaughter ranch as protection against Pete Wiggins, Ed Hyde et al's scheduled test in League 92, Lipscomb County School Lands.

Illinois Oil Company-Ernest L. Wilson et al's Yellowhouse 1, southeastern Bailey County wildcat and the most northerly active prospect in the basin, was drilling below 2200 feet, having logged top of anhydrite at 1990 feet and first salt at 2090 feet. R. F. Duggan, Dallas, et al are moving in rotary to proceed with a 5200-foot test on the Yellowhouse land in Hockley County. Hugh Corrigan et al (was W. L. Pickens et al's) Lewright 1, southern Terry County wildcat originally temporarily abandoned in water at 4975 feet last March, logged favorable oil saturation in lime at 5037-5039 feet and 5112-5125 feet. Operations were halted at 5133 feet to run tubing with packer set above the first oil showing, but the seat gave way.

Revival of interest in the Eaves area, northern Winkler County, is likely to materialize from the success of Gulf Oil Corporation's Edwards 1-A, west offset to the original producer, which is now flooded with water, in developing a natural flow of 106 barrels of oil in 6¾ hours at 3133 feet. Gas volume was rated at 1,816,000 feet daily. Last 5 feet of lime stepped up the oil yield. Harry Adams et al's Edwards 1, south offset to the new producer, is producing about 3000 barrels of water and 40 barrels of oil daily, with the hole bottomed at 3040 feet.

The unit plan of operation will be carried out by six companies in drilling an Ordovician lime test about one-half mile southeast of the recent prolific deep producer completed by Gulf Oil Corporation in the Sand Hills field, Crane County. Sinclair Prairie Oil Company et al are starting work on J. B. Tubb 2, NW NW SW Section 3, with all but 80 acres in the section incorporated into the unit.

The same group forestalled the expiration of their leases early last year by completing a small oil producer from Permian lime in the southeast corner of the section, but the land owner has refused to accept royalty checks.

New deep horizon in South Vernon district

Wichita Falls, Texas.—Another deep oil horizon underlying the prolific 3076-foot lime uncovered last February in the Rock Crossing section of the South Vernon district, Wilbarger County, was encountered the past week by W. W. McDonald and R. B. Campbell, Dallas, et al's W. T. Waggoner Estate 3-A, NEc Section 26, Block 4, H & T C Ry. Survey, in deepening to 3577 feet. This new discovery is about 2¾ miles southeast of the three natural flowing wells completed in the upper Canyon lime at 3076 feet, and is credited with being in the lower Canyon, topped at 3553 feet, with an elevation of 1132 feet, with oil saturation at 3565-3577 feet. Five-inch pipe has been cemented at 3553 feet.

Production test for W. T. Waggoner 3-A will be made early this week, according to McDonald. Twelve-pound mud was used while drilling and coring the Canyon section due to the porous formation absorbing ordinary drilling fluid or water. This prospective southeast extension for the Canyon passed up oil saturation in lime at 3040-57 feet and 3079-84 feet in order to try for production in the second deep zone, which was logged by a 4090-foot failure near NWc Section 32, Block 4.

Phillips Petroleum Company, discoverer of the 3076-foot oil horizon and Humble Oil & Refining Company are taking the lead among Rock Crossing operators in drilling additional tests, and deepening old producers to the Canyon. Prospects are bright for the Canyon to enable the area to again become the most active drilling center in North Texas, as the oil tests 39 gravity and the wells are allotted a high allowable. Phillips Petroleum Company's W. T. Waggoner Estate 193, NWc Section 43, Block 4, was recently completed as an east offset to the Canyon discovery with a natural flow of 1275.84 barrels initial from lime at 3058-72 feet, and was given an allowable of 164 barrels daily. The latter has an elevation of 1161 feet.

Deep dry holes in the Rock Crossing area reveal that the Canyon production will be somewhat narrow in following a northwest to southeast trend, and that a sharp dip takes place from the high point of the structure. Geo. L. Pace et al's W. T. Waggoner Estate 1, SE NE NW Section 45, Block 4, about one mile northwest of the upper Canyon discovery, failed to show oil or gas in the upper Canyon, and was abandoned as a failure at 3307 feet. Plugging orders were issued before the lower Canyon was found to offer possibilities of production.

Canyon lime produces oil in comparatively few areas in North Texas. The Chalk Hill field, Archer County, and the Johnson ranch property in western Foard County held entirely by The Texas Company et al have been the outstanding strikes. Joe Howell et al will attempt to extend the latter field

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FOR API MEETING . . JUNE 1-3

RAIL FARES

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Dallas	25.10
Fort Worth	24.05
Wichita Falls	20.25
Amarillo	12.95

SCHEDULE

Lv. Houston via B-RI RR	4:00 P. M.
Dallas, FW & DC RY	9:50 P. M.
Fort Worth "	11:05 P. M.
Wichita Falls "	1:59 A. M.
Amarillo "	7:38 A. M.
Ar. Colorado Springs C & S RY.	5:45 P. M.

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about ½-mile northwest into Cottle County through the drilling of Tom L. Burnett 1, SEc of the Wm. Winningham Survey.

South Archer Test Promising

H. M. Tebay, Graham, et al's Richardson 1, J. Scott Survey, A-374, southern Archer County wildcat, gives promise of establishing a new lime pool about 3500 feet north of nearest production. Production in the area is generally from the sand series. Richardson 1 logged first oil saturation in lime at 1209 feet, and showed free oil at 1214-25 feet, according to owners. The lime section was drilled to 1240 feet, where water appeared, in search of a sand zone. The hole has been plugged back to 1225 feet, and casing cemented at 1209 feet to use acid.

The Davenport field, Montague County, has entered a bid for its third oil horizon from sand zone at 2325 feet. O. V. Beck, Nocona, et al's Davenport 2, originally completed in the 1700-foot zone, encountered the lower formation at 2318 feet, and has cemented an extra string of pipe to make a production test.

EAST TEXAS A.P.I.
Meeting will be held on May 25 at Kilgore

Kilgore.—The East Texas Chapter of the American Petroleum Institute, Division of Production, will meet at 8 p.m. Tuesday evening, May 25, in the Kilgore Heights School Auditorium. A program of much interest to everyone interested in oil production has been arranged.

The subject for discussion will be "Present and Future Production Methods in the East Texas field." The subject will be presented in three parts: A general discussion of the field by W. S. Morris, field chairman of the East Texas Engineering Association; the second part will deal with pumping and will be discussed by George L. Nye, of Tide Water Associated Oil Company; the third part will be devoted to gas lift, and will be presented by Riley Aucoin, Humble Oil & Refining Company.

In addition to a discussion of this most interesting and important question, the chapter officers for the coming year will be elected.

TEXAS PANHANDLE
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
CARSON COUNTY—		
Stanolind, E. Cooper 7	224	3152
COLLINGSWORTH COUNTY—		
Smith Bros. Ref. Co.-C. & H. Drl. Co., G. Bell 1	*	2142
GRAY COUNTY—		
Gray Co. Production Corp. (was King Oil Co.), Chapman 2	1422	2725
Hugail Oil Co., Cole 1	20	3301
Kewanee O&G Co., R. Arnold-Morgan 10	739	3283
Magnolia, R. J. Sailor 6	559	3225
The Texas Co., Dave Pope 2	475	3310
G. H. Saunders 26	306	2853
J. E. Williams 19	191	2785
HUTCHINSON COUNTY—		
Gulf & Panhandle Ref. Co., C. L. Dial 68	339	3045
Kewanee O&G Co. (was Travelers Oil Co.), W. B. Haile 2-B	887	3043
Martex Pet. Co., J. C. Alexander, C. C. Pitcher 1-B	350	3202
Phillips Pet. Co., Cockrell 19	197	3074
Skelly Oil Co.-H. L. Cabot, Inc., R. Yake 1	267	2940
Turman Oil Co.-Plains Pet. Corp., Whittenburg 11-A	826	2925
MOORE COUNTY—		
Phillips Pet. Co., Clarence 1	¶41	3250
WHEELER COUNTY—		
Corite Oil Co., Gregg 3	37	2144
C. T. Palmer et al, W. H. Holmes 2	10.9	2277
A. Nelson 5	¶41.4	2235

*Failures; †Junked; ¶Million cu. ft. gas.

NORTH TEXAS
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
ARCHER COUNTY—		
C. E. Beavers et al, R. O. Prideaux 1	35	798
L. T. Burns et al, W. D. Pace 8, blk 163	3	1278
Consolidated Oil Co., Portwood 18-C-D, sec 2412	*	1456
Golding & Cochran, B. R. Jeske 11, sec 6	15	1187
Groves & Kelleher, S. E. Oldham 7-A	15	1371
Underwood Drl. Co. et al, T. B. Wilson 5, sec 12	10	1623
Van Wormer & Boller, Falls County 4, blk 62	*	1182
Falls County 5, blk 61	*	1178
CLAY COUNTY—		
Bridwell Oil Co., O. T. Roach 1, blk 4	*	1303
Metzner & Burns, Thornberry 18, blk 6	10	340
COOKE COUNTY—		
Bourland & Gannon, J. M. Floyd 1	*	2023
Dove Oil Co., J. A. Carr 10	453	1969
Dr. J. Q. Spradlin et al, R. W. Trew 5	3	1150
DENTON COUNTY—		
E. J. Ruwaldt et al, J. S. Gambill 1	*	2125
HARDEMAN COUNTY—		
R. L. Locke & J. D. Durham, A. Schoppa 1, sec 57	*	730
JACK COUNTY—		
Cato Oil Co., J. A. Raley 5-B	223	3132
Cockburn & Boase, Brysol School 2	181	3030
Corvette Oil Corp., Clayton Bros. 4	224	3015
P. F. Gwynn & Overby, B. F. Rankin 5	145	3015
Taubert & McKee, Clayton Bros. 1	232	3017
W. P. Thompson et al, H. C. Moore 1, sec 7	*	3128
MONTAGUE COUNTY—		
Continental, N. J. Howard 34	24	1223
J. W. Rowland 14-A	*	975
Denver Prod. & Ref. Co., T. R. Copeland 1, blk 162	*	4739
WICHITA COUNTY—		
J. W. Akin et al, Geo. W. Diener 1, blk 326	*	2008
Culbertson Co., Waggoner Bros. 83, sec 13	*	820
King Oil Co., M. M. Stone 5-A	125	1633
M. M. Stone 2-B	36	1626
W. T. Waggoner Est. 1-U	*	1950
Pet. Producers Co., Allen-Kemp 73	620	3878
Pois & Schulz, Foster-Allen 5-A, sec. 1	142	1301
H. H. Spencer et al, J. J. Weibner 28	2	240
WILBARGER COUNTY—		
Geo. L. Pace et al, W. T. Waggoner Est. 1, sec 45	*	3307
YOUNG COUNTY—		
S. S. Alexander et al, L. D. Clark 2, sec. 209	10	848
Chambers & Humphreys, Benson 5, sec. 1392	38	895
B. C. Gilmore et al, F. M. Gilmore 1, blk 14	*	623
Knight Oil Corp., G. B. Hamilton 1, sec. 1394	20	877
Lion Oil Ref. Co., S. L. Scott 3, sec. 345	*	822
Pet. Producers Co., C. E. Luton 9	*	686
Rathke Oil Co., C. E. Graham 15, sec. 3401	20	915
W. A. Scarborough et al, J. C. Hawkins 1, sec. 411	*	1100
Stuckey O&G Co., R. C. Howard 1, sec. 243	*	760
White & Duncan, Prideaux 5-A	*	780

*Failures; †Junked; ¶Million cu. ft. gas.

WEST TEXAS
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
ANDREWS COUNTY (Means Field)—		
Humble, J. S. Means 19	534	4532
CRANE COUNTY (Gulf-McElroy Field)—		
Gulf, J. T. McElroy 148	122	2983
CRANE COUNTY (McCamey Field)—		
Bert Fields et al, A. Gibbs-Conoco 5	721	2274
CRANE COUNTY (Waddell Field)—		
Gulf Oil Corp., W. N. Waddell 17	4367	3517
ECTOR COUNTY (Foster Field)—		
Atlantic Ref. Co., J. L. Johnson 1	207	4200
Broderick & Calvert, H. C. Foster 3	535	4300
Indian Territory Ill. Oil Co., J. L. Johnson 1	600	4200
Stanolind, E. F. Cowden 3-B	365	4178
Weekley Oil Corp., E. F. Foster 2	†	3895
ECTOR COUNTY (Goldsmith Field)—		
Atlantic Ref. Co., W. F. Cowden 4-A	375	4250
Bond Oil Corp.-L. C. Harrison, TP Land Trust 2	1312	4240
Devonian Oil Co., C. Scharbauer 2-A	287	4230
C. Scharbauer 3-B	982	4226
Humble, W. F. Cowden 4	378	4267
Landreth Oil Corp., C. Scharbauer 2-G	1100	4220
C. Scharbauer 1-H	1348	4210
Shasta Oil Co et al, C. Scharbauer 1-B	1368	4238
Shell, TP Land Trust 1-A	650	4254
ECTOR COUNTY (Judkins Field)—		
Tide Water Associated Oil Co., Scharbauer 1, lse 2	234	3690
ECTOR COUNTY (North Cowden Field)—		
Stanolind, J. M. Cowden 42	1667	4280
GLASSCOCK COUNTY—		
Conoco & Group 1 Oil Corp., Settles 30-S	454	1240
Settles 31-S	454	1285
HOWARD COUNTY—		
Conoco & Group 1 Oil Corp., S. T. Eason 3-A	1325	2450
JONES COUNTY—		
Thos. D. Humphrey, H. Dorsey 18	540	2073
Lewis Prod. Co. (was Chas. Gyr et al), L. E. Clyburn 1	*	1956
E. A. Ungren-A. J. Frazier, H. Dorsey 14-C	714	2215
J. W. Jennings 12	184	2041
McCULLOCH COUNTY—		
Harry Curtis et al, M. A. Rice 1	*	860
PECOS COUNTY (Wildcat)—		
Pinerock Oil Co.-F. J. Downey, White-Baker 1	*	2013
UPTON COUNTY (McCamey Field)—		
Basin Oil Properties, Inc. (R. H. Henderson), Baker-Gulf 1-B	1197	2335
L. H. Choate-F. T. Hogan, M. L. Baker-Conoco 2	878	2307
Gulf Oil Corp., J. H. Shirk 9	506	2378
G. H. Rogers 5	248	2294
J. H. Shirk 6-E	616	2344
WARD COUNTY—		
Amerada Pet. Corp., W. W. McDonald 2	682	2454
Gulf Oil Corp., E. W. Estes 20	640	2650
E. W. Estes 21	1127	2650
E. W. Estes 22	243	2600
Hanna & Case, E. L. White 1	170	2572
Pat Hill et al, E. H. Clements-Sun 13	250	2300
Provine & O'Quinn, Inc., J. B. Tubb 1	45	2191
Rio Bravo Oil Co., D. Olcott 21	2266	2523
Standard Oil Co. (Texas), J. F. York 29	25	2525
Tex-Mex Pet. Corp., S. G. Smith-Pure 8	600	2430
WINKLER COUNTY (Henderson Field)—		
W. K. Royalty Co., J. B. Walton-Humble 5-B	10,000	3054
WINKLER COUNTY (Kermit-Sayre Field)—		
Gulf Oil Corp., Daugherty 35	1251	3020
Daugherty 37	574	3020
Daugherty 39	963	3020
Humble, N. R. Colby 16-A	569	3026
J. F. Howe 10	1577	3010
Monday Oil Co.-Bert Fields, Abilene Bank-Conoco 16	1035	3132
Sinclair Prairie, F. S. Vaden 2-B	808	3070
Siosi Oil Corp., J. C. Lovett 9	298	3140
Sun Oil Co., Daugherty 4	414	2936
Tide Water Associated, Walton 15	899	3135
WINKLER COUNTY (Wildcat)—		
York & Harper, Inc., Munson-Gunter 1	*	5004

*Failures; †Junked; ¶Million cu. ft. gas.

EAST TEXAS

Cayuga being extended farther into Henderson County.

* * *

Tough tool in hole may force discovery abandonment.

* * *

Nine-mile Marion County Rodessa outpost produces.

Palestine, Texas.—Extension of the Cayuga field one mile farther north into Henderson County assumed a promising outlook late last week when Goodnight Oil Company and Paul F. Rutledge's M. M. Nash-Ford 1, SEc of 20-acre lease, John Hallien Survey, recovered oil-saturated sand in a core at 4105 feet, or 3765 feet sub-sea. Core barrel run at 4100 feet recovered two feet of oil sand, and the bottom 10-inches was identified as shale. Owners plan to cement pipe and test. Sun Oil Company owns lease on a large tract situated between this outpost and the field, and is starting its first test on the south line of the R. R. Watkins land.

Hunt Oil Company has contracted to carry on a large drilling program in the Long Lake field, Anderson County, through acquisition of 12 short-term leases, aggregating 712 acres, from Tide Water Associated Oil Company and Seaboard Oil Corporation, discoverers, on an over-riding royalty basis. Portion of each lease is virtually proved for oil or gas production, and several tracts will require immediate development because of offset drainage. discoverers of the field contemplate drilling approximately 24 wells this year on the remainder of their large leasehold.

Production test through tubing choke given the Placid Oil Company et al's J. E. Elliott 1, recent Woodbine strike on the Procella geophysical prospect in northeastern Houston County, failed to yield oil but will make considerable distillate with 2150-pound pressure gas flow. Given 5-hour test through ¼-inch choke, the well produced 15 barrels of distillate in addition to some salt water, and the gas volume was rated at about 800,000 feet daily. Production is from gun-perforated 5½-inch pipe opposite top of Woodbine at 5868-5870 feet. The hole was plugged back from 6634 feet to cement pipe at 5960 feet, with water sand logged immediately below the comparatively thin oil and gas zone. Shell Petroleum Corporation owns most of the close in acreage, having contributed toward the drilling of the first well. No market is available for the desirable gas produced by this new discovery, and the two gas-distillate wells on the Grapeland structure, except for fuel on drilling rigs, thereby nulifying the value of the distillate production. Two more tests are to be drilled on the Grapeland structure, and in all probabilities additional prospecting will be carried on at Procella to try for oil production on the flanks of the structure.

Attempt to shoot rock bit from drill pipe delayed

Tyler, Texas.—An attempt to shoot rock bit from drill pipe cemented in Tide Water Associated Oil Company et al's McElreath-Suggett 1, discovery well in the lower Trinity on the Opelika structure, Henderson County, has been delayed by an obstruction within the 4½-inch stem. The well responds to washing with oil and water occasionally by making brief flows when the channels in the rock bit are cleared. Unless the bit can be removed by explosives, else penetrated with a high-test milling tool, the well is destined to be plugged. This wildcat encountered about 10 feet of oil-saturated lime in drilling to 7195 feet, and the drill pipe hung when raised 35 feet off bottom, making it necessary to cement same in this position to forestall a blowout. In the meantime owners are proceeding with installation of equipment to drill a second test, as announced last week, in the southeast corner of the 149-acre lease, 900 feet southeast of the original prospect.

To Go 10,000 Feet

A goal of 10,000 feet has been tentatively set for Tide Water Associated Oil Company and Seaboard Oil Corporation's Monnig Bros. 7, Trinity test in the Long Lake field, Anderson County. Drilling was in progress late last week at 9620 feet in basal Glen Rose. Tom Hunter and American Liberty Oil Company's Gagel, located on the Blackfoot structure, Anderson County, was drilling at the 9160-foot level.

Stanolind Oil & Gas Company's Hawks 1, located in the Campbell area, Hunt County, and on the Mexia-Talco fault trend, was drilling in Georgetown lime at 4150 feet, having topped this marker at 3730 feet, with an elevation of 566 feet, or about 80 feet lower structurally than recent sub-Trinity failure drilled by Superior Oil Company on the Quinlan structure. Penn Oil Corporation and Fox Wood's Parrish 1, six miles northeast of Lone Oak, Hunt County, was abandoned at 6503 feet, having entered the Paluxy zone at 5015 feet, with an elevation of 595 feet.

Humble Oil & Refining Company's L. K. Riggs 1, northeast Van Trinity project, has skidded rig 100 feet south after losing the original hole in Paluxy at 4664 feet.

Expect producer to be best in Marion County's Rodessa

Shreveport. — What is expected to prove the most consistent oil well so far completed in the Marion County, Texas, extension of the Rodessa field, was flowing 15 barrels of oil per hour through 7/16-inch tubing choke May 13. It is Hunter Company's E. W. Fonda 1, A. de Los Santos Coy Survey, nearly nine miles southwest of nearest commercial production in the Rodessa field. The well was still making some drill water late Thursday. Casing pressure was 325 pounds and tubing pressure, zero.

The well was washed in from 6096 feet in the Gloyd horizon, and four hours later, after being cleaned, was rocked with gas and began to head oil, later in the day beginning to flow steadily through choke.

With an elevation of 309 feet, this test topped first anhydrite at 5333 feet and logged massive anhydrite from 5602 to 5865 feet with the final stringer at 5893 feet, topping the Hill horizon at 5998 feet and the Gloyd at 6077 feet logging saturation from 6084 to bottom. Seven-inch casing was cemented at 6082 feet.

This well is located southwest of the village of Lodi, and about halfway between it and the field proper, Arkansas-Louisiana Gas Company's W. S. Ford 1, Charles G. Grayson Survey, Marion County, has been swabbing and flowing some oil, but has not been officially completed. This test is five miles northeast of Holcomb, Thomasson and associates' Lizzie Henderson 1, R. Bennington Survey, gauged as a 96-barrel well but now making about 175 barrels.

EAST TEXAS

Completions

Company, Well and Location	Initl. Prod. Bbls.	Depth
JOINER AREA—		
Chicago Oil Co., E. B. Alford 8 (12½-ac)	1500	3600
W. H. Gant-Garvin-Wegener, W. P. Moore 33 (134.24-ac)	2000	3588
Gulf E. E. Thrash 14 (83.56-ac)	7800	3744
Humble, J. W. Turner 37 (286.52-ac)	6500	3778
M. H. McMurrey, Tr., G. A. Turner 24 (199-ac)	4000	3805
Overton Ref. Co., S. & M. Clay 11 (65.26-ac)	1000	3575
J. C. Prine et al, J. H. Stewart 2 (4-ac)	40	3756
Regent Oil Co., L. Harmon 6-B (5.6-ac)	8000	3780
Sinclair Prairie, A. S. Jarvis 15-B (106.9-ac)	5000	3700
G. Patterson 13 (164.33-ac)	3000	3674
Texas Canadian Oil Corp., Frederick 1-F (6-ac)	*	3635
Frederick 1-F-a (6-ac)	288	3575
Texokana Oil Co., H. Kersh 5 (46-ac)	*	3610

Company, Well and Location	Init. Prod. Bbls.	Depth
KILGORE AREA—		
J. S. Abercrombie-Harrison Oil Co., M. A. Cantrell 14 (56.11-ac)	9600	3691
Atlantic Ref. Co., W. J. Brightwell 21 (96.4-ac)	9000	3724
Cook Drl. Co., S. E. Mayfield 6 (33½-ac)	60	3635
Danciger O&R Inc.-Monahan Drl. Co., McNeely 5 (17-ac)	6800	3617
Flanagan Prod. Co., W. B. Walker-Tidal 10 (91.3-ac)	1000	3610
Gen'l American Oil Co., S. Williams 24-B (112-ac)	750	3659
Gulf, G. W. Culver 31 (209.01-ac)	5600	3547
W. Florence 21 (165.09-ac)	7500	3696
L. & G. Oil Co., A. A. King-Conoco 1 (87¼-ac)	600	3742
C. L. McMahon et al, Joe King 4 (20.8-ac)	2500	3633
Sinclair Prairie, John Elder 8 (50-ac)	10,000	3560
W. B. Walker 9 (72.14-ac)	4000	3684
Sun-Seaboard Oil Corp., Ed. Smith 12 (57.31-ac)	9300	3650
W. C. Turnbow Oil Corp., G. W. Culver 5 (30-ac)	120	3555
Welch-Sandler Oil Co., Barnett-Tidal 9 (107-ac)	60	3745
LONGVIEW AREA—		
Arkansas F. O. Co., J. A. Whitaker 16 (75.52-ac)	8700	3541
Barnett Pet. Corp., Buckholt 6 (63.7-ac)	720	3744
Gen'l Crude Oil Co.-Pet. Finance Corp., J. Williams 10 (62.54-ac)	4000	3655
Gulf, A. V. Bacle 15 (69¾-ac)	7600	3610
Humble, H. M. Lawrence 24 (164.7-ac)	9000	3699
Kewanee O&G Co., Fee 28 (168.77-ac)	10,000	3583
C. A. Lee-Bert Fields, E. L. Walker 1 (4.43-ac)	500	3585
Magnolia, H. Hampton 26-A (153.33-ac)	6500	3647
Margay Oil Corp., O. M. Victory 14 (87-ac)	3600	3609
Stanolind, V. Calvin 14 (60.02-ac)	8400	3638
M. M. Custer 11 (75.34-ac)	3000	3571
Sun, G. W. Tate 11 (64.8-ac)	10,000	3552
The Texas Co., T. B. Stinchcomb 9 (87.29-ac)	2000	3735
Texola Drl. Co (was Southland), D. C. Shelton-Humble 4 (15.4-ac)	360	3752
Tide Water Associated, Arch Davis 21 (133.8-ac)	10,400	3562
Trentman Oil Corp., L. K. Cone-Williams 1 (18¾-ac)	200	3738
ANDERSON COUNTY (Long Lake Field)—		
Stanolind, W. B. Robinson 2	¶30	5397
FRANKLIN COUNTY (Talco Field)—		
L. S. Flannery Inc., J. L. Hedrick 4 (65-ac)	200	4254
W. B. Hinton et al, A. Owings 1 (40¾-ac)	120	4350
Humble, T. L. Leake 1 (191.9-ac)	451	4314
HOPKINS COUNTY (Sulphur Bluff Field)—		
W. L. Goldston-Normandie Oil Corp., H. J. Smith 9 (450-ac)	500	4521
F. D. Jones et al, S. B. Pierce-Gulf 2 (150-ac)	960	4532
TITUS COUNTY (Talco Field)—		
W. B. Hinton et al, M. B. Coker 2 (75-ac)	500	4252
Humble, A. P. Kirkpatrick 2 (44.91-ac)	61	4333
Pan-American Life Ins Co. 2 (80-ac)	233	4312
John O'Neal & Rotondi, W. T. Edwards 1 (10-ac)	220	4308
VAN ZANDT COUNTY (Van Field)—		
Pure Oil Co., W. H. Cook 7 (86-ac)	3500	2984
HUNT COUNTY—		
Penn Oil Corp. & Fox Wood, A. B. Parrish 1 (200-ac)	*	6503
VAN ZANDT COUNTY—		
Humble, L. K. Riggs 1 (74.2-ac)	†	4664
CASS COUNTY (Rodessa)—		
Hoffman and Marr, Davis 3, J. S. Smith sur	240	6010
Magnolia Pet. Co., George 13, John Collom sur	72	6080
R. W. Norton, Davis 7, H. Holbert sur	538	6051
United Gas P. S. Co., R. Q. Long 1, Wilson Robinson sur	264	6017
Hall 2, Wilson Robinson sur	330	6039
Spell 1, Cass County Sch. Land sur	338	5640
HARRISON COUNTY (Waskom)—		
C. M. Bagley, J. N. Trosper 3, C. Davenport sur	8	2422

*Failures; †Junked; ¶Million cu. ft. gas.

SOUTH TEXAS

Deepest South Coast producer in Nueces County.

* * *

New type crude showing in Zavalla Edwards test.

* * *

Sweeden is proving to have multiple sands.

Corpus Christi.—United Production Corporation's W. H. Harvey 1, Nueces County, deepest producer in the South Texas Gulf Coast, was flowing about one third 40 gravity oil and the remainder salt water at last reports. The well likely will be recemented for further tests. It was making 4½ barrels of fluid per hour through ⅛-inch chokes under pressures of 2725 pounds on tubing and 3250 pounds on casing, the pressures having materially risen from the original completion.

This test was drilled to 9002 feet, plugged back and perforated pipe at 7275-82 feet. It has a very large sand section, which is either in the base of the Frio or the top of the Vicksburg section.

The well is located 1100 feet east and 1000 feet south of the most northwesterly corner of a 162.34-acre tract in the Garcia Survey, on the west side of the Agua Dulce field.

Its showing is sufficient to create much interest along this trend, which already is receiving a deep play. About 1½ miles south of production in the South Agua Dulce field, Lonnie Glasscock drilled to 6011 feet in Kansas Life Insurance Company 1 and ran an electric formation tester. The well likely will be completed just above this level.

John Camp Drilling Company's Wardner 1, recent completion to extend the Stratton field and open a new producing horizon at 5992-6002 feet, has been given a potential test, flowing 47 barrels of 49.3 gravity oil in 24 hours through 3/16-inch choke under pressures of 2100 pounds on tubing and 2200 pounds on casing. The gas-oil ratio is 34,600/1 and the gravity is 49.3. Camp and associated are reported to be planning another test more than one mile south of Stratton production, in Kleberg County.

Several miles northwest of Agua Dulce development and northeast of the Bentonville-King field, Nueces County, Southern Minerals Corporation was progressing near 6400 feet on its 8000-foot contract.

Barnsdall Oil Company was coring near the 7997-foot level in Kate Edwards 1-A, on the Lamar prospect in Aransas County. The well will attempt to test the showing encountered at this level in Edwards 1, 660 feet to the northeast, which blew out several months ago and was lost. The Edwards 1-A set 9⅝-inch casing at 7524 feet after drilling to 7548 feet. Plugs were drilled and a drill-stem test of 31 minutes duration made, the result being 600 pounds gas pressure against a 3000-foot fresh water cushion.

Phillips Petroleum Company's Midway discovery, San Patricio County, is showing improvement. Completed through perforations at 5336-38 feet, it flowed 60 barrels on a 24-hour test through ⅛-inch choke and showed pressures of 1510 pounds on tubing and 2125 pounds on casing. The gas-oil ratio was set at 18,500/1. The company has spudded a second test ¾-mile north.

Steinberger Petroleum Corporation et al was attempting to complete S. G. Druschell 8, deep test in the Edna field, Jackson County at 5402 feet. The well, located in Lot 15, set casing on bottom after finding a sand and sandy shale section from 5319-5402 feet and has perforated. This is the second well to be completed in this sand, the first being finished several years ago as a distillate producer.

The London field revealed its third producing horizon when Cosner & Cosner's Stockton 2 was completed at 4906 as a gas and distillate well. It topped the sand at 4897 feet, set casing on bottom and gun perforated. Several days prior, Gem Oil Corporation's Stockton 1 opened a new distillate sand at 4752-61 feet flowing 28 barrels of fluid per day through ¼-inch choke.

Zavalla County Edwards test has heavy oil show

San Antonio.—H. F. Wilcox's T. J. Gilliam 1, potential Edwards limestone field discovery well in northeastern Zavalla County, was being watched as efforts were being made to drill out a bridge in the hole. The test encountered a soft, porous formation at 3941-47 feet, apparently top of the Edwards, where it attempted to blow out. Elevation is 767 feet, derrick floor.

The well made a head of mud, water, oil and gas, then bridged about 2500 feet. The fluid column, despite the bridge, has built up to near top of the hole. The uppermost section, fully 300 feet, is 16 to 17 gravity heavy black crude and the remainder is water carry-

ing a high sulphur odor. The oil is asphalt base, carries no gasoline content and is very similar to the Tampico grade of crude.

This test's real value likely will not be learned for several days. When the lime was encountered, the drilling line and bit of the cable tool rig were blown into the 8¼-inch casing, set about 3120 feet. The pipe had to be removed to recover the fish, following which the hole caved and bridged around 2500 feet. The drilling out of the bridge is a rather slow process, but the pipe is being carried ahead to make the hole stand up.

This well is 330 feet out of the northeast corner of SW Section 11, Block A-2, GWT & T Railway Survey, six miles northeast of Batesville and 25 miles northwest of the Pearsall field. H. F. Wilcox took 14,600 acres in the original block. It is understood that 8600 acres was turned to the Wilcox Oil & Gas Company, the 4000 acres being retained for the drilling of the well.

Low Gravity Crude Problem

The discovery is looked upon from two angles by operators and major company representatives in the territory. The low gravity crude, which is jelly-like in substance, will be rather difficult to handle to market, being about 150 miles from tide water. On the other hand, the discovery is in an almost virgin portion of South Texas and this well, if finally completed as a producer, may be the key to a new producing region. As well, it may lead to the discovery of the Edwards lime in an altered condition, similar to the prolific producing areas of northeastern Mexico.

It is understood that at least one more test will be commenced immediately in this area, even if this well should fail to develop into a commercial producer.

To the southeast in Frio County, Amerada Petroleum Corporation has been developing production in the Pearsall field in the Navarro, Austin Chalk, Buda, and Edwards. One test, Halff & Oppenheimer 8, is drilling below 9518 feet on a 10,000-foot Trinity-sand project. Halff & Oppenheimer 1, original test in the Pearsal district, abandoned several years ago, is running 5½-inch liner to 6312 feet after setting 7-inch casing at 5430 feet. It will drill ahead to test the Edwards limestone. Southwest of the field, D. D. Harrigan 2 is still trying to get on bottom, total depth being 6290 feet. Kothman 1, a deepening job, lost bailer in the hole and is fishing at 5559 feet.

Start Wilson County Test

In Wilson County, a 5500-foot Edwards lime test has been started by Maryland Oil Corporation et al. It is Trammel 1, M. May Survey, 3 miles northwest of Pandora.

Sun Oil Company's Dietert & Oppenheimer 1, Section 7, east of Rock Springs, Real County, has been abandoned in the Ordovician after testing 250 feet of salt water at 5953-56 feet. The test, which has an elevation of 2370 feet, topped the Bend at 5100 feet, Marble Falls at 5655 feet, Mississippian lime at 5715 feet and Ellenberger at 5750 feet.

Sweden is multiple-sand producing area

Laredo. — Sweden district, Duval County takes on the appearance of being a multiple-sand area with another producing horizon being definitely established through completion of a gasser in a 5100-foot Jackson stratum. Hiawatha Oil & Gas Company's Southland Life 2, Section 15, ¼-mile northwest of production, blew out while attempting to complete from 5100-5 feet, where pipe had been perforated with 10 shots. The well ran wild for a few hours, but finally was controlled and is now being finished as a gasser.

The above test drilled a sand at 5836-49 feet, which tested dry and another at 5859-65 feet, which carried water. Carried to 5939 feet without favorable results, it was plugged back to test a sand topped at 5672 feet, which showed possibilities. A series of perforations between 5672-5719 feet netted only mud on a drill-stem test.

Northeast of the discovery, same operator's Herberger 2, Section 14, failed in the sand topped at 5894 feet and has been plugged back to complete as a gasser at 5076-81 feet.

The trend north about six miles comes into the limelight as possible producing area in one of the sands uncovered by the Hiawatha concern, or in the Gravis sand about 4750 feet, which opened the North Sweden field recently. About ½-mile northwest of the Gravis discovery, Highland Oil Company was coring for the sand in Faris 1. This well is reported to be checking slightly higher than the discovery and gives possibilities of producing. Five rigs are running in the north field at this time, and several more are expected to be commenced within the next few days.

Gravis and associates are building a short pipe line and 10-car loading rack at railroad siding near Benavides to handle the crude from these producers.

Thomas-Lockhart Field

Several miles north of these groups of pools, Thomas Estate and Lockhart Brothers apparently have a second producer in the Thomas-Lockhart field. Coring good sand section at 4711-27 feet, drill stem test was run. A second test failed and a third was being made at last reports. It is just north of the discovery.

A rather hot wildcating play appears to be in the making through southeastern McMullen County. Several new wildcats were staked during the week, while additional wells had reached critical depths. Edwin M. Jones' Ezzell 3, a closed well on the Ezzell prospect, is reported to have drilled to 5225 feet in the Carrizo and plugged back to complete in the Government Wells sand around 1265 feet.

Humble Oil & Refining Company's Roos Brothers 1, Section 119, Duval County, provided a ¼-mile northwest extension to the Loma Novia sand production in the Labbe field. The test, bottomed at 2871 feet, has about 350 feet of oil in the hole but will not flow. It is being placed on pump. The importance in the completion is that it appears that this structure finally is going to be worked into an oil producing area.

The new Killam field, eastern Webb County, has been further expanded by three more producers in the 2000-foot Mirando sand. This pool's completions thus far have been limited to 75- to 150-barrel wells. This is unlike the Lopez field, nearby, which has provided scores of large flowing wells from the same horizon.

SOUTH TEXAS

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
SAN ANTONIO DISTRICT		
BEXAR COUNTY—		
Albert Chmel, Theresa McIntosh 1, commence most northerly northeast corner of tract, thence south 1073 ft, thence 280 ft w at rt/a in 275-ac tr, J. W. Garrity sur No. 19....	*	805
C. E. Euton, Louis F. Ridder 1, 3000 ft n Nelson rd, 150 ft wl of w/350-ac of 700-ac tr, Jose M. Baerrera sur 58, 3000 ft w Shaver 2 Bitter	1½	835
L. K. Oil Co., J. F. & F. X. Bilhartz 1, 150 ft el 600 ft sl of 382-ac tr in the F. Rolen sur 48, (Von Ormy)	*	40
CALDWELL COUNTY—		
Chiquita Oil Co., W. W. Hickman 4, G. Hinds sur, (Salt Flats).....	142	2629
Lincoln Pet. Co., M. W. Calliham 4, Dillard-Cooper sur, (Branyon)....	675	2155
J. G. McKenzie, J. M. Pierce 1, 150 ft w & swls, se¼ 100-ac tr, Solomon Seal League (sur), (Dunlap)	*	2060
Taylor Ref. Co., F. M. Branyon 1-C, Jarman sur, (Branyon)	75	2334
GUADALUPE COUNTY—		
Diamond Half Oil Co., E. Bibbs et al 1, 660 ft sel & nel 66.6-ac lse out of 217-ac tr, Joel W. Robinson sur, (Darst Creek)	*	5510
Dave T. Mulholland, T. W. Jahns 1, 2000 ft nl 150 ft wl (road) of tr, J. K. Davis sur, (S. Darst Creek)	*	....
Ramona Oil Co., Mrs. Katy Lay 2, J. K. Davis sur, (S. Darst Creek)	300	2360
HAYS COUNTY—		
R. D. Kelly, W. P. Donalson et al 1, 450 ft e/l, 360 ft s/l of 150-ac tr, J. Vermandi Grant	*	890
WILLIAMSON COUNTY—		
Taylor Refg. Co., Walter R. Heap 7-B, Hamilton White sur, (Byersville)	*	960
LAREDO DISTRICT		
DUVAL COUNTY—		
Bridwell Oil Co., C. W. Hahl 8-A, sur 250 (Gov't Wells).....	*	2368
Continental Oil Co., Clara Driscoll Sevier 14-A, sec 448 (Driscoll)..	360	3414
Humble Oil & Ref. Co., Dowdy-Fee 16, el of sec 272 (Seven Sisters)..	450	2570
Humble Oil & Ref. Co., Violet Kohler 58-A, J. G. Reynolds sur 424, (N. Kohler)	*	2879
Magnolia Pet. Co., Duval County Ranch Co. 1, sec 203 (Piedra Lumbre)	60	1981
Magnolia Pet. Co., Emma Herbst 14, sur 70 (Loma Novia)	35	2755
John J. O'Hern, S. Benavides 3-C, O'Hern subd, Mesquite Gr., (Cole-O'Hern)	900	2815
Reynolds & Richardson, D. Ruiz Est 1, 2970 ft nl, 3498 ft el sec 125, (Hoffman)	*	3896
Welling Oil Co., DCRC 9, sur 52, (Colmena)	250	1472
Wellington Oil Co., DCRC 10, sur 52, (Colmena)	*	1500
McMULLEN COUNTY—		
Loma Oil Co., L. Jacob Corp. 6B, GH & H sur 15, (N. Jacob)....	*	1250
WEBB COUNTY—		
W. C. Billings, Fee 1, blk 1, (Lopez)	480	2304½
Glenn Harroun et al, A. Lopez 1-A, sur 110, (Lopez).....	250	2254
LuTex Oil Co., Lone Star Con. Co. 1-A, 7850 ft nwl 750 ft swl Porcion 12, 300 ft nwl 233 ft swl blk 26 S&B Sub. Porcions 12-13 & 14....	*	2886
Smith & Hamill, Garcia & Villereal 1, sur 1099, (Killam).....	200	2016
ZAPATA COUNTY—		
Earl Callaway, Belen Bustamante 4, Comitas Gr., (Escobas).....	47	1239
Dalport Oil Corp., Jose Bustamante 1, Fansler Partition Comitas Gr., (Escobas)	*	1995

[*Continued on next page*]

Company, Well and Location	Init. Prod. Bbls.	Depth
Lewis Prod. Co., Martinez 1, center blk 123 sh 1 el Crullo Gr.	*	....
Magnolia Pet. Co., Alice D. Haynes 1, blk 5, A. D. Haynes Sub, Comitas Gr.	¶5	1354
Nordan & Morris, C. Bustamante 5, Share 33 Fansler Part. Comitas Gr., (Escobas)	70	1275
Sylvan Price, Maryland Trust Estate 1C, 330 ft sl 330 ft el blk 15 sur 314, (Martinez)	*	3514
CORPUS CHRISTI DISTRICT		
ARANSAS COUNTY—		
Atlantic Refg. Co., McCampbell Ranch 6-B, lot 5, blk 41, (McCampbell)	450	7297
Rutherford Oil Corp. et al, W. A. Scrivner 1, lots 15, 16, blk 12, (McCampbell)	¶10-120	7250
BEE COUNTY—		
Siznod Oil Co. & Texas Pros, D. Bergel 2, sec 19, Uranga Gr., (Strauch)	*	4365
BROOKS COUNTY—		
L. & W. Oil Co., William Singer 1, sur 436, (Alta Verde)	*	965
CALHOUN COUNTY—		
Humble & Plymouth, E. H. Welder, 7, J. M. Rios sur, (Heyser)	650	5478
Humble & Plymouth, P. H. Welder 11-A, J. M. Rios sur, (Heyser)	500	5478
Humble & Plymouth, P. H. Welder 13-B, Sisneros sur, (Heyser)	725	5586
DEWITT COUNTY—		
J. K. Davis Jr. & Ira L. Keith, Afflerbach 1, 990 ft nl & wl L. V. Criswell sur 44	*	4260
GOLIAD COUNTY—		
Brown & Wheeler, J. R. Kauffman 1G, 900 ft nwl, 330 ft nel sw¼ blk 14, F. P. Zock sub, P. Trevino sur, (Hords Creek)	*	4605
JIM WELLS COUNTY—		
Tom Graham & Gilcrease Oil, G. M. Laughlin A2, S. K. & K. sur 231, (Permont)	¶5-50	3171
Tom Graham & Gilcrease Oil Co., L. E. Seeligson 6, sec 77, Haldeman Subd, (Premont)	275	2252
H. J. Roberts Oil & Gas Co., Lem. Allen et al 1, 330 nl & wl of tr 2, blk "B" Bode subd, Wade Ranch	*	....
NUECES COUNTY—		
I. J. Allen & Seaboard Oil Co., J. O. Chapman et al 4, 660 ft sl & 3300 ft wl sec 38 Laureles Farm Tracts Ramon de Ynojosa Gr. 1320 e 3, (Chapman Ranch)	*	6600
Chireno Prod. Co., Hillman 1, (Saxet Hgts.)	75	4099
A. D. Corgy et al, Page Brothers 1, G. Frank sur 416, (Saxet)	300	6715
Heyser & Heard, A. J. Kosar 1, 330 ft el & swl of 152-ac tr, J. M. Cody sur, (Saxet)	*	4870
Humble & Barnsdall, R. A. Gulden 3, lot 18 blk 47, (Flour Bluff)	500	6655
Humble & Barnsdall, L. A. Webb 4, lot 9, blk 47, (Flour Bluff)	500	6673
Humble & Barnsdall, A. A. Webster et al 4, lot 27, blk 48, (Flour Bluff)	350	6670
Pan American Production Co., Rand Morgan 5C, sur 405, (Saxet)	625	6905
Pan American Production Co., J. Sagarino 5-B, sur 500, (Saxet)	375	5823
Potter and Nowden, Inc., Antone Kocurek 2, John Smith sur 25, (Saxet)	625	4207
Republic Nat'l Gas Co., Atles & W. B. McCampbell 2, Kinney Lands sur, sec 8, (Saxet)	350	4281
Republic Natural Gas Co., W. W. Walton 3, Kinney Land sur, sec 8, (Saxet)	¶15	4266
Richardson Petr. Corp., F. Quiros 8, blk 36, (Saxet)	950	5750
Wellington & Pan American, Clara D. Seivier 2-A, Wm. Gamble sur, (Clara Driscoll)	*	....
REFUGIO COUNTY—		
United Prod. Co., M. F. Lambert 51, J. M. Swisher sur. (Tomoconnor)	395	5915
SAN PATRICIO COUNTY—		
Cage Production Co., J. W. Mayo 8, J. Fessenden sur. (Taft)	525	4929
Magnolia Pet. Co., Corpus Christi Bank and Trust Co. 12, J. Fessenden sur. (Plymouth)	*	6797
Wheelock & Collins, Inez Willis 1, 330 ft. nel 990 ft sel of lot 3, Blk "E" Gregory subd.	*	6521
Esves Oil Co., J. L. Britton 4, blk 8, Sec 6, (Taft)	450	4364
VICTORIA COUNTY—		
Haynes B. Owensby, W. B. Traylor 8, Traylor sur. (Placedo)	375	4771
Superior Oil & Gas Co. et al, J. Hosek 6, S. A. & M. G. sur. 7, (Placedo)	475	4769

*Failures; †Junked; ¶Million cu. ft. gas.

Making deep core test

Mission.—Standard Oil Company of Texas' Mestina 1, Lease 2, 6 miles north of the Alta Mesa field, Brooks County, had progressed to 3720 feet and was coring. The well is to be an unusually deep core hole, exploring the various possible producing horizons on the company's large block in this area. The well has been through several oil and gas sands above this level, and showings are consdered sufficient to make a producer.

In the main field, Mestina 5 is coring at 3310 feet, while Mestina 6, ½-mile north of production is coring below 2672 feet.

Among the other deep wells in the Rio Grande Valley district are Shell Petroleum Corporation's Yturria 1, on the La Sal Viejo prospect in Willacy County, last reported below 9440 feet, and coring, and Stapper Petroleum Corporation's Port Isabel 1, Cameron County, was making hole at 7825 feet, near contract depth.

K. E. Merren's Starr County Cattle Company, in the Barbacoas area of Starr County, is attempting to open Cockfield sand production. After drilling to 5533 feet, casing was landed on bottom and is coring. The casing primarily was for protection against the heavy pressure which caused abandonment of the first test by the operator, it being located 270 feet to the north.

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TEXAS GULF COAST

Buckeye extension prospect being washed in.

* * *

Hastings field flank tests commercial producers.

Houston.—Three miles southwest of Buckeye, Matagorda County, United North & South Development Company was washing C. Q. Stoddard 1, J. B. & M. Cotton Survey, Abstract 17, after perforating casing with 30 shots from 9769 to 9782 feet where an odor of gas and oil was encountered while drilling to 9895 feet. An electrical logging device indicated fair porosity and resistivity in the 9769-foot sand. A string of 7-inch casing was cemented at bottom. The outcome of this well is being watched with much interest, as it may open a new oil field.

Deep Citrus Grove Wildcat Fails

Another disappointment was reported at Citrus Grove last week when Continental Oil Company announced abandonment of Robbins 2, Franz Survey, Matagorda County, after drilling to 11,612 feet. The well was stopped in Frio formation. Robbins 2 is the deepest well ever drilled in the Texas sector of the Gulf Coast. From an engineering standpoint the well was important, as it proved that heaving shale could be mastered. It is understood that the company drilled around 4000 feet of shale in Robbins 2. No new operations have been announced for this area.

Another failure was marked up at Van Vleck field when Royal Oil Company's Holub 1, southeast offset to Skelly Oil Company's Langham 1, encountered gas sand from 7990 to 7100 feet and then was drilled to 8510 feet in salt water sand, after logging top of the sand at 8474 feet.

Three Flank Tests Successful

Probably the outstanding development in Brazoria County last week was the development at Hastings field. Humble Oil & Refining Company, Navarro Oil Company and Stanolind Oil & Gas Company, all completing flank tests as commercial producers. On the north side of Hastings and in the Perry & Austin Survey, Navarro Oil Company completed Beers 1, for 645 barrels of pipe line oil through a quarter-inch choke from Marginulina-Frio sands at 6058 feet. Sand showing oil was found at 5990 feet and seven-inch casing was cemented at 5995 feet. On the northwest flank of Hastings, Stanolind Oil & Gas Company's M. Condon 1, H. & T. B. Survey, Section 29 made 372 barrels daily through a quarter-inch choke, with a tubing and casing pressure of 870 pounds, from sands showing oil from 5552 to 6080 feet. In the same area Humble Oil & Refining Company's King 2 made 606 barrels daily through a ¼-inch choke and had a tubing pressure of 800 pounds. The well was completed in sands from 5939 to 6080 feet. Hastings was defined norheast when A. W. Crosby's Ross 1, stopped in salt water sand at 6131 feet.

Attempting Lochridge Extension

Approximately 2100 feet east of production at Lochridge, Brazoria County, Shell Petroleum Corporation was coring ahead in Ramsey 3 at 6567 feet at the end of the week. A sand encountered around 6541 feet failed to show anything of commercial importance. Another sand with oil odor was logged from 6423 to 6435 feet.

Gulf Oil Corporation completed a good well at Lochridge during the past week. Wilkes & Smith 3, J. W. Hall Survey made 701 barrels daily through a quarter-inch choke, with a tubing pressure of 200 pounds. The well is producing from sands 6366 to 6378 feet.

North of the discovery well at Sandy Point, Florence Investment Company's J. A. Fite 1, Talley Survey, was coring for the pay sand at the end of the week at 6479 feet. A sand was logged from 6438 to 6458 feet which contained a slight odor of oil.

Two new locations were announced southeast of Withers field, Wharton County, in the Magnet area. Atlantic Refining Company's Cockburn Fee 1 is 1300 feet west of the east line and 520 feet south of the north line of lot 10, block 84 in the Smith & McKenzie Survey. Texas Crusaders Oil Company's E. Sweet 1 is 150 feet from the north and west lines of a 10-acre tract in the Smith & McKenzie Survey. Only one well has been completed in this area.

In Ft. Bend County, it is understood that John Byers is making a location for a well in the Smithers Lake area. The wildcat is to be located near Superior Oil Producing Company's large block.

Second Katy Well Coring Gas Sand

The second well at Katy gas field, approximately ¾-mile southeast of the discovery well, Stanolind Oil & Gas Company's Hargrove 1, T. S. Reese Survey, Section 110, Waller County, was coring in shale at 6790 feet. Gas sand has been encountered at several levels, the last being from 6745 to 6778 feet. Hargrove 1 proves the Katy area as a large gas reserve.

In Austin County, R. L. Hopkins & J. T. McGregor et al's Reinecke 1, southeast of Bellville, J. Stephenson Survey, was drilling in shale at 4199 feet after coring sands from 3956 to 4013 feet and from 4073 to 4093 feet which were dry.

The first gauge taken on Republic Production Company's Hurd 2, discovery well at Spurger, Tyler County, showed the well to be making 17 barrels per hour through a quarter-inch choke, with a tubing pressure of 1000 pounds and a casing pressure of 1500 pounds. The discovery well was completed at 7641 feet in Claiborne age. On a ⅛-inch choke the well made 110 barrels daily, with a tubing pres-

TEXAS GULF COAST
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
AMELIA—		
Humble, Dishman 1	648	6775
Lawler 1	648	6780
Peveto 3	648	6775
ANAHUAC—		
Humble, Drought B-1	660	7127
Tyrell 15	696	7085
White B-14	¶7	7025
Zappe 7	643	7080
BARBERS HILL—		
Superior Oil Co., Barber 3	*	3092
BATSON—		
Gulf, Wing 185½	475	423
Rio Bravo, Fee 501	46	1802
BLUE RIDGE—		
Trans-State, Blakeley 1-A	230	3811
BOLING—		
Mackhank Oil Co., Farmer A-3	*	4041
CLEVELAND—		
Gulf, Kirby C-17	133	5887
CONROE—		
A. A. Cameron, Bailey 1	500	5112
DICKINSON—		
Humble, Maco Stewart A-17, dr to 9135, perf 7971-7974 ft	¶3½ & 120	9135
HASTINGS—		
A. W. Crosby, Ross 1	*	6131
Humble, Crook 1	668	6080
King 2	606	6080
Moody 2	618	6080
Navarro Oil Co., Beers 1	645	6058
Stanolind, Condon 1	377	6080
S. Paul 4	576	5918
HULL—		
D. & L. Prod. Co., Layton 4	200	4955
Texas Co., Hannah Fee 6	240	4744
HUMBLE—		
A. W. Crosby, Brazo Oil Co. 2	60	2506
Brazo Oil Co. 4	60	1903
Marlee Oil Co., Cherry 4	10	917
LOCHRIDGE—		
Gulf, Wilkes & Smith 3	701	6378
MANVEL—		
C. P. Burton, Baldwin 2	517	4053
NOME—		
Sun Oil Co., Long 4	420	6050
RACCOON BEND—		
Humble, Hardy B-13-X	*	4185
Thompson 22-X	*	4280
SEGNO—		
Gulf, Wing 3	160	5193
SPINDLE TOP—		
Stanolind, J. O. Davis 5	152	2080
TOMBALL—		
Humble, Martens B-1	*	5612
Texas Co., Sam Lewis 3	¶½	5555
VAN VLECK—		
Royal Oil Co., Hulub 1	*	8510
WITHERS—		
Texas Co., Pierce Estate C-27	44	5554
MATAGORDA COUNTY—		
Continental, Robbins 2, Citrus Grove prospect, C. Franz sur	*	11,612
POLK COUNTY—		
G. Gates, Jackson 1, se of Onalaska, E. Clark sur	*	5557
WALLER COUNTY—		
Red Bank, Chapman 1, n of Hempstead, M. Donhoue sur	*	4808

*Failures; †Junked; ¶Million cu. ft. gas.

sure of 1300 pounds and a casing pressure of 1800 pounds.

Approximately 4000 feet south of the discovery well at Clinton gas field, Harris County, Stanolind Oil & Gas Company was preparing to drill cement plugs on Oates 1, C. Martinez Survey, at 8088 feet. Oates 1 was drilled to 8783 feet and encountered a gas pressure so strong it was necessary to pump cement into the formations from 8088 to 8136 feet. Plugs will be drilled and a production test made of the gas sand at 8100 feet.

Stanolind Oil & Gas Company's Jacobs 1, W. C. R. R. Survey, Block 1, Section 2, approximately 3000 feet southwest of production at Fairbanks field, Harris County, was running 7-inch casing to 6835 feet at the end of the week for a production test. The hole was drilled to 7276 feet before plugging back. A gas sand was encountered at 6840 feet.

Conroe Extended North

Conroe field, Montgomery County, was extended 1200 feet north when A. A. Cameron's Bailey 1, R. Kuykendall Survey, was completed at 5112 feet for 500 barrels of pipe line oil daily through a quarter-inch choke. Tubing pressure was 300 pounds; casing, 600 pounds. Bailey 1 was drilled to 5112 feet and 7-inch casing cemented at 5090 feet. This well was completed on farm-out acreage of Humble Oil & Refining Company.

At Turtle Bay field, Chambers County, Stanolind Oil & Gas Company made location for Davis 1. It is 394 feet north and 704 feet west of the southwest corner of a 25-acre tract in the S. Burney Survey.

San Antonio.—Order has been given by the Crude Oil Pipe Line Company for 32 miles of 5-inch line pipe for construction of a line from the Cole-O'Hern field in Webb County to the Government Wells field. It will tie into the above concern's trunk system at that point to carry oil to its terminal at Corpus Christi. The oil to be transported is 27.5 gravity, slightly higher than the Government Wells and Loma Novia crudes now being handled. Storage likely will be constructed at both the O'Hern station and the Freer station so that the oils may be segregated.

SOUTH LOUISIANA
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
JENNINGS—		
Superior, Jennings-Heywood 2	528	6496
IOWA—		
Shell, Heyd 23	499	4440
LAFITTE—		
Texas Co., L. L. E. Lafitte 6 (perforated 9998-10,018 ft)	1050	10,368
LAKE BARRE—		
Texas Co., Lake Barre 37 (comp at 3766 ft)	546	10,959
LEEVILLE—		
Texas Co., L. L. E. Leeville 59	1334	4849
NEW IBERIA—		
Texas Co., Duhe 2	1190	4454
ROANOKE—		
Humble, Devilbiss 8-B	672	8840
ST. MARTINVILLE—		
Tide Water, Smedes 3	406	5563
WEST HACKBERRY—		
W. T. Burton, Kennedy 1	1032	4837
EAST BATON ROUGE PARISH—		
Cavalier Oil Co., Young 1, near Port Hudson, 52-4s-1w	*	5000
EVANGELINE PARISH—		
Continental-Humble, Pardee Lbr. Co. 1, Reddell area, 18-4s-1w	*	8875

*Failures; †Junked; ¶Million cu. ft. gas.

Humble gets deepest commercial production in world.

* * *

Horseshoe Bayou may set world record for depth.

Lake Charles.—The deepest commercial oil producer in the world was being prepared to be killed May 14 when Humble Oil & Refining Company's Elender 1, south of Houma and in the old Houma gas field, Section 23-19s-19e, Terrebonne Parish, showed 25 percent salt water from Miocene sands at 11,620 to 11,630 feet.

Elender 1 discovered a new oil field May 10 when it came in flowing 40 barrels of 39 gravity oil through a ¼-inch choke, with a tubing pressure of 2700 pounds and a casing pressure of 3400 pounds. Seven-inch casing was perforated with 11 shots from 11,620 to 11,630 feet.

During the week the well increased its flow to 60 barrels per hour through ¼-inch choke and was making from 2 to 17 percent salt water. The last 24 hour gauge showed that it averaged 75.85 barrels of fluid per hour of which 47.57 barrels was net oil. Tubing pressure was 3200 pounds and casing pressure, 4900 pounds.

Elender 1 may be described as a breaker of records. Besides the number of records the well broke which are described in a story in this issue (page 42), the wildcat is showing the highest recorded flowing pressure of any well ever before completed. Stanolind Oil & Gas Company's discovery at Clinton, Harris County, Texas, showed a shut-in pressure of 5100 pounds and a pressure of 4800 pounds on a meter from the manifold to the vent line. It has not been estimated what the pressure will be on Elender 1 when it is shut in. The company has installed a 10,000-pound test Christmas tree on the well and surface connections have been tested to 10,000 pounds.

Texaco Wildcat Below 12,000 Feet

The fifth 12,000-foot well in the world is The Texas Company's Horseshoe Bayou 1, on Horseshoe Bayou, Section 40-17s-9e, St. Mary Parish. The wildcat indicates that it may establish a new world's record for deep drilling. At the end of the week the well was drilling at 12,000 feet in a large size hole, only 786 more feet from a new world's rec-

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ord for deep drilling. The company had 11,769 feet of 3-inch drill pipe at the location and ordered out another 2500 feet of the same size pipe.

At last reports it is understood the well was still in Miocene formation. Where the Oligocene will be picked up is not known. Should the well drill on down and find a sand below 12,000 feet sufficiently saturated to make a commercial producer it will take from Humble Oil & Refining Company the honor of having the deepest commercial producer in the world.

Considerable interest is being shown in the deep Horseshoe Bayou wildcat from an engineering angle. The company is having considerable trouble with heat at the bottom of the hole. The temperature at 12,000 feet is around 180 degrees F.

Second Producer Extends St. Martinville

St. Martinville field, St. Martin Parish, was extended 1000 feet northwest last week when Tide Water Associated Oil Company completed the second commercial producer for the field. Smedes 3, Section 57-11s-6e, came in flowing 203 barrels of pipe line oil in 12 hours through a 3/16-inch choke, with tubing and casing pressures of 740 pounds from Miocene sands from 5526 to 5563 feet. Seven-inch casing was set at 5551 feet. Tide Water and Continental Oil Company are drilling Smedes 1-C, northwest of Smedes 3, and at the end of the week the well was down around 6200 feet and has evidently missed the regular producing sand.

If Smedes 1-C is a failure it will probably define the St. Martinville field on the northwest. Wells have been drilled in all directions from the discovery well, and each outpost has been abandoned. The discovery well at St. Martinville field has produced around 375,000 barrels of oil since it was completed.

At Henderson Salt Dome, The Texas Company made a 45-minute drill stem test on St. Martin Land Company 9, Section 21-8s-7e, St. Martin Parish, which showed salt water. Casing was perforated from 8164 to 8195 feet. At the end of the week the test shut down. St. Martin Land Company 9 was drilled to 8858 feet in salt after logging the top of the formation at 8848 feet. This wildcat was the first well in the area to encounter salt.

New Charenton Sand Shows Water

Pan American Production Company's South Coast Corporation 1, which was completed last week to discover a new sand and extend Charenton field southeast, started making salt water and was killed. The well was making from 10 to 15 percent water. South Coast Corporation 1 came in for 20 barrels per hour through a quarter-inch choke from Miocene sands at 7923 feet. The company announced location for Veeder 1 at Charenton last week. It is 440 feet north and 440 feet west of the SEc NW¼ of Section 30-13s-10e. The company also made location for Lawes 4, 440 feet north and 440 feet west of the SEc SW¼ of Section 30-13s-10e, St. Mary Parish.

Herton Oil Company's Carter 6, indicates that it will extend Jeanerette field, St. Mary Parish, east. A sand showing oil was cored from 7031 to 7041 feet. Seven-inch casing was set at 7006 feet on top of broken sand and shale showing oil at 7010 feet. The same company's Banta 8, Section 59-13s-8e, St. Mary Parish, was also waiting on cement to set at the end of the week. The hole was drilled and cored to 6655 feet in sand showing oil. Top of the sand was logged at 6650 feet. Top of the broken sand was found at 6630 feet. Seven-inch casing was cemented at 6637 feet.

In the Patoutville area of Iberia Parish, Hamil & Smith announced location for Dave Baez 1, approximately 2900 feet south and 2867 feet east of the northwest corner of Section 35-12s-7e. Louisiana Land & Exploration Company leased considerable acreage in this area for geophysical work.

Lafitte Field Extended Northeast

Lafitte field, Jefferson Parish, was extended northeast last week when the third 10,000-foot commercial producer was brought in. The Texas Company's L. L. E. Lafitte 6, Section 29-17s-24e, came in for 1050 barrels of 37 gravity pipe line oil daily through a 3/8-inch choke, with a tubing pressure of 950 pounds after casing had been perforated with 233 holes from 9998 to 10,018 feet. The hole was originally drilled to 10,368 feet and 7⅝-inch casing was set at 10,204 feet.

In East Baton Rouge Parish, Cavalier Oil Company made location for E. Jacocks 1, 1930 feet south and 29 degrees west from the northeast corner of Section 69-4s-1w. The same company abandoned E. B. Young 1, near Port Hudson, Section 52-4s-1w, East Baton Rouge Parish, at 5000 feet after running an electrical logging device.

In East Feliciana Parish, G. C. Koch et al made location for Andrews 1, 330 feet east and 330 feet north of the southwest corner of the Andrews tract in Section 69-2s-3e, Clinton area. This area has been the scene of considerable geophysical work. Kirby Petroleum Company, Humble Oil & Refining Company, Sun Oil Company, and The Texas Company have considerable acreage in the area.

Good Oil Odor in Big Lake Test

A good odor of oil was logged at 8326 feet in Union Sulphur Company's J. O. Hebert 1, Big Lake area, Section 18-12s-8w, Cameron Parish, last week, and at the end of the week the operators were running an electrical logging device. Top of the broken formation with the oil odor and a fair cut was logged at 8284 feet.

Another location was announced on the Mallard Bay prospect, Cameron Parish, by Pure Oil Company. State Mallard Bay 2 is 1106 feet north and 532 feet east of the southwest corner of Section 14-13s-3w. Pure Oil Company once drilled a 10,000-foot dry hole on this prospect.

Superior Oil Producing Company completed another producer at Jennings field, Acadia Parish, last week when Jennings-Heywood 2, Section 41-9s-2w, came in for 490 barrels in 22 hours, 38 gravity oil, through a 15/64-inch choke. Tubing pressure was 1310 pounds; casing pressure, 1250 pounds. The well was completed in sand showing oil at 6293 feet.

In Evangeline Parish, Continental Oil and Humble Oil & Refining Company abandoned Pardee Lumber Company 1, Redell area, Section 18-4s-1w, at 8875 feet.

A new oil and gas sand was cored at Lake Pelto field, Terrebonne Parish, by The Texas Company's State Lake Pelto 16, Section 17-23s-18e. Sand was encountered at 7033 to 7091 feet and from 7103 to 7117 feet. At the end of the week an electrical logging device was run.

The Texas Company has evidently discovered a new producing sand at Caillou Island, Terrebonne Parish, in State Terrebonne 3, Section 19-23s-20e. Cores taken from 6618 to 6681 feet and from 6620 to 6648 feet showed oil. Seven-inch casing was cemented at 6648 feet and casing was perforated with 139 shots from 6620 to 6648 feet. The deepest producing horizon at Caillou Island is around 6800 feet. This new sand lies between the 6100 and the 6800-foot sands.

Second Sugar Creek well flows at 325-barrel rate

Shreveport, La.—United Gas Public Service Company and associates' Dobbins 1, NE NE 12-19n-6w, Claiborne Parish, second oil well from the Travis Peak in the Sugar Creek gas field, when opened last week flowed through a 5/8-inch choke 245 barrels of oil in the first 18 hours after the well was opened. Tubing pressure was 1275 pounds and casing pressure 1500 pounds.

This well is located one mile south of the same operators' Warren Brown 1, Section 1-19n-6w, completed several weeks ago as a small oil well, the first in that field to produce oil. It was also in the Travis Peak. Operators have already started deepening Carter Unit 1, Section 32-20n-5w, from the gas-distillate producing horizon at 4300-4500 feet to the Travis Peak. Owning equal rights in the Sugar Creek field are United, Standard Oil Company of Louisiana, and Triangle Drilling Company. This is a unitized field.

In the new well 5½-inch casing was cemented at 5660 feet, with 200 feet of perforated pipe on bottom. It first tested 20 million feet of gas and 25 barrels of oil per hour, and then was acidized with 3000 gallons and flowed at the rate of 250 barrels of oil and 40 million feet of gas daily through open casing, before being shut in while tankage was erected. It was after erection of tankage that the well was opened last week for gauge.

NORTH LOUISIANA Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
BOSSIER PARISH (Sligo)—		
Triangle Drlg. Co., State A-2, 23-17n-12w	200	5170
CADDO PARISH (Rodessa)—		
J. Edward Jones, Maidie Sharpe B-2, 4-23n-16w	84	6070
United Gas P. S. Co., Starcke 4, 9-23n-16w	580	5948
CLAIBORNE PARISH (Lisbon)—		
Gulf Oil Corp., Patton 2, 36-21n-5w	810	5330
Patton 3, 36-21n-5w	780	5310
Patton 4, 36-21n-5w	484	5275
Eva Bennett 1, 31-21n-4w	465	5324
DeArmond & McMillan, Maggie Patton A-1, 31-21n-4w	655	5293
Vaughan 1, 36-21n-5w	465	5313
T. L. James & Co., Patton 1, 36-21n-5w	450	5350
Patton 2, 36-21n-5w	464	5313
Love Pet. Co., H. E. Patton 1, 36-21n-5w	485	5350
Lyons & Neely's Maggie Patton 1, 31-21n-4w	465	5272

*Failures; †Junked; ¶Million cu. ft. gas.

NORTH LOUISIANA

Lisbon completes eighteenth Glen Rose producer.

* * *

Nine feet of saturated sand reported in outpost.

Shreveport.—The new Lisbon field, Claiborne Parish, that produces oil from basal Glen Rose lime, added its eighteenth oil producer last week when DeArmand and McMillian's Roberta Vaughan 1, NW NE 36-21e-5w, was completed at 5313 feet for 456 barrels through 12/64 inch tubing choke. The well extended production north 660 feet. Seven other wells were completed last week.

The field has twenty-three active operations, with indications that exploratio nnot only will continue north and northeast, but also south and southwest.

Despite several shooting pictures to the contrary, some of which show the discovery well of the field on the south edge of the structure, the fact that this well logged top of the saturation at 5315 feet and had saturation with only a few breaks to bottom at 5373 feet, which is more saturation than logged in any of the 17 other producers, indicates that the saturated horizon probably thickens to the south.

Furthermore, the two mile west outpost test, J. B. Bond's Burgess 1, Section 3-20n-5w, which went to 5900 feet and shut down without completion, is now reported to have had nine feet of saturation in the basal Glen Rose horizon instead of the 1½ feet of saturation formerly reported. In view of the success of acidization in the main part of the field this test may be acidized with a view to a test. No casing has been set aside from surface pipe.

Chief outpost interest at present in the field is centered in J. R. Bevill and associates' Alex Edmonds 1, NE NE 16-20n-5w, three miles southwest of production, which is drilling below 1400 feet.

Abandon two prospects

Shreveport, La.—Two wildcats on geophysical prospects in North Louisiana were being abandoned last week, one below 7200 feet and the other below 5600 feet.

In Claiborne Parish near Athens, Standard Oil Company of Louisiana's R. D. Baker 1, NW NW 27-19n-7w, was running an electrical tester preparatory to abandoning at 7247 feet. This test, which logged Travis Peak at 7027 feet, topped red beds at 3760 feet and topped anhydrite at 5155 feet.

Benedum and Trees Oil Company was following the same procedure in Clifton 1, NE NW 33-13n-12w, DeSoto Parish, on the flank of the Naborton area. With an elevation of 199.2 feet, this test logged top of the anhydrite at 4096 feet and tested salt water at 5004 feet.

Leasing at Sharp Pace

Wildcat leasing activity continued at a sharp pace in North Louisiana last week, with major interest in the southeast trend from Shuler, Union County, Arkansas, into the North Louisiana basin.

Harmon and Greenwall have assembled 5,000 acres around Section 18-19n-1e, Union Parish, Louisiana, for a proposed Glen Rose test. In Bienville Parish, around Section 29-16n-9w, Arkansas-Louisiana Gas Company is adding to its holdings, and in the same township and range, Shell Petroleum Corporation has been leasing.

Gulf Oil Corporation and F. F. Meadows have been active purchasers recently around the Haynesville field in Township 23 north, Range 8 west, Claiborne Parish. In DeSoto Parish, Amerada Petroleum Corporation has taken a number of leases in Township 12 north, Range 16 west, from McElreath and Suggett. Sinclair-Prairie Oil Company has also been leasing in the same township and range.

Magnolia Petroleum Company, The Texas Company, Sun Oil Company and Grogan Oil Company have been actively leasing in the vicinity of the latter company's junked Ramsey 1, Section 36-11n-11w, DeSoto Parish, several miles south of the Bull Bayou-Naborton area.

Would Deepen Old Wildcat

In Lincoln Parish, around Arkansas-Louisiana Gas Company's Causey 1, Section 32-19n-2w, drilled to 4687 feet. Shell Petroleum Corporation has been active recently; it is reported that American Liberty Oil Company has been negotiating with Arkansas-Louisiana for 2500 acres in its block to deepen the above test 200 feet into the Travis Peak.

Sun Oil Company continues to add to its acreage in Townships 22 and 23 north, Ranges 2 and 3 west, Union Parish, where it now has approximately 5000 acres. Magnolia Petroleum Company, Hunt Oil Company and Mid-Continent Petroleum Company are also large holders in this general area.

Standard Oil Company of Louisiana has a seismograph unit working in Townships 20 and 21 north, Ranges 2 and 3 west, and is taking some scattered acreage. It also is filling in a block around Township 20 north, Range 1 west.

In Tensas Parish, H. M. Jones is reported to have sold an interest in his 16,000-acre block to Sherrouse and Snyder, who have been taking acreage recently in Township 13 north, Range 11 west, for a test to spud by July 15 and go to the Wilcox sand. The latter operators also have much acreage in Township 13 north, Range 10 west.

In Webster Parish around the Shongaloo area, United Gas, Standard of Louisiana, and H. L. Hunt continue to lease, and in Township 20 north, Range 10 west, south of Cotton Valley, Arkansas-Louisiana has been leasing recently.

To plug back and perforate wildcat

Shreveport. — H. A. Stebbinger and associates were arranging to plug back and perforate casing last week in Pickering Lumber Company 2, A. Hanson Survey, Shelby County, Texas, after the well swabbed salt water at 5126 feet. Elevation is 205 feet. The plug was drilled earlier in the week and the hole swabbed without any showing of any kind. It was then discovered that sixty feet of plug remained to be drilled out and when this was done the swab was run twice late Wednesday and the well shut down for the night. When swabbing was resumed Thursday morning the salt water appeared. This test is three-fourths of a mile southeast of the same operators' Pickering Lumber Company 1, C. E. Henry Survey, a small gas-distillate producer at 5029 feet.

Magnolia Petroleum Company's E. A. Hull 2, Thomas Applewhite Survey, Panola County, after logging a formation that showed some gas and distillate at 5885 to 5900 feet, and having the well threaten to blow out at the 5960-foot level, was preparing to cement 9⅝-inch casing and drill ahead.

Humble Oil & Refining Company is reported planning a series of fifteen core holes in Shelby County west of Tenaha.

East of Ore City, Cass County, Sun Oil Company has been leasing recently.

29 Louisiana Permits

Shreveport. — Twenty-nine drilling permits were authorized last week by the minerals division, Louisiana Conservation Commission.

Nineteen were in North Louisiana, divided among the following parishes: Bossier, one (Sligo); Caddo, eight, of which seven were in Rodessa; Claiborne, four, all in Lisbon; Grant, one; Lincoln, one (Lisbon); Morehouse, three; and Rapides, one.

The ten in South Louisiana were divided among the following parishes: Calcasieu, one; Cameron, four; East Baton Rouge, one; Iberia, one; La Fourche, one; Plaquemines, one; and Terrebonne, one.

ARKANSAS FIELDS

Assemble 8500-acre block for Hempstead County test.

El Dorado.—H. D. Easton of Shreveport and H. P. May of Hope, Arkansas, have assembled a block of approximately 8500 acres centering around Section 5-12-26, Hempstead County, Arkansas, for a proposed 4500-foot test. These operators drilled two tests in this county during 1936.

In the same county, E. H. Moore has spudded Porterfield 1, NE SE 21-14-25, for a test that is expected to go 6000 feet or deeper.

Schuler Strike Causes Leasing

As a result of the discovery of oil at Schuler, Union County, in Lion Oil Refining Company's Edna Morgan 1, Section 18-18-17, leasing still continues in counties adjoining Union County. In Columbia County, Robert Keen is assembling a block in Township 16, Ranges 20 and 21, and in the same county P. N. Wiggins is leasing in Township 18, Range 20. L. A. Longino has leased approximately 2000 acres in Townships 15 and 16, Ranges 20, 21, 22 and 23. The Texas Company has been taking some leases recently in Lafayette County in Township 16, Range 23, and 11 miles east of Stephens J. E. Childers continues to lease in Township 15, Ranges 17 and 18.

In Union County, Lion Oil Refining Company has been taking some leases around Section 27-17-12. In the Schuler area, Standard of Louisiana took some leases in Township 18, Range 17, from C. E. Murdock. Arkansas-Louisiana Gas Company has been leasing around Section 23-18-17 and Gulf Oil Corporation around Sections 3-19-17, and 34-18-17.

E. O. Olds has been given contract for a 3500-foot test to be drilled two miles north of Saratoga, Arkansas, in Howard County, on a block secured by Homer Tison and in which Reynolds and associates later secured an interest.

Schuler discovery offset unable to test upper sand

El Dorado.—Lion Oil Refining Company's Edna Morgan B-1, SW NW SE 18-18-17, Union County, Arkansas, southeast offset to the discovery oil well of the Schuler district, completed at 5559 feet and averaging over 370 barrels of oil daily, was unable to make a successful drill stem test of an oil showing logged in a new horizon at 3103 to 3132 feet, and was drilling ahead last week below 3700 feet.

The showing was found in the cuttings as no indication had been found in the discovery well of possible production at this shallower horizon. Considerable oil and some salt water showed up in the first drill stem test made, and in the second a caving hole prevented the tester holding and the well was drilled ahead.

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SOUTHEASTERN STATES

Three wildcats planned for Wilkinson County.

Jackson.—Three tests are reported contemplated for Wilkinson County, southwest Mississippi, "in the trend" within the next two months.

Danciger Oil & Refineries, Incorporated, have secured an extension to July 1 to allow time to complete geophysical exploration on a 42,000-acre block in Township 4 north, Ranges 1 and 2 west, where a test to the base of the Cockfield is planned. The acreage was secured from the Foster Creek Lumber Company.

On the same lumber company's land, Charles Green and associates of Laurel, Mississippi, have a block and have made tentative location for a test in Section 4-3n-1e, just north of a 5000-foot test drilled over a year ago.

Shooting Crews Busy

The third test on this company's acreage in this county is expected by the Foster Creek Oil Corporation, headed by Dr. C. B. Pennington of Baton Rouge, Louisiana, which drilled a 3700-foot test three years ago in Section 14-2n-2w. Recently Shell Petroleum Corporation had a gravimeter unit for a time in this county. Hoard Exploration Company has two units doing detail work on Danciger's holdings.

Due to obligations he had to fulfill for the State of Mississippi in its drilling operations in the Jackson gas field, E. R. Owen, Jackson contractor, will be unable to drill two proposed 6000-foot tests in Bolivar and Sunflower counties, Mississippi delta, for Phillips Petroleum Company, and another contractor will be obtained at once as the tests are due to start by June 1.

Geophysical activity continues unabated in south Mississippi. Phillips still has a unit in Perry County, Sun Oil Company has three in Lamar County, and a seismograph unit working for Southern Natural Gas Company is still active in Hinds County.

Georgia Wildcat Fishing

Atlanta.—Wade and associates of Jacksonville, Florida, set 4½-inch casing at 1563 feet in Moses and O'Neal 1, near Uvalda, Montgomery County, Georgia, and the wildcat now has a fishing job at 1585 feet. Reports were heard and printed in some newspapers that an oil showing had been encountered at 1542-47 feet. An automobile motor and a water well unit were used in drilling the test, it was said.

Adams-Louisiana Royalty Company is reported assembling a block of acreage in Telfair County, Georgia, and Independent Exploration Company has a geophysical unit working in Coffee and nearby counties, headquartering at Waycross.

NEW MEXICO

Nineteen new operations for Lea County.

* * *

Penrose and Monument are extended.

Hobbs, N. M.—Lea County recorded 19 new operations the past week, including a wildcat in the east portion of the county, and a test for the second oldest oil producing area. Majors were credited with 14 of the new projects, and are taking a more active part in the development of leases in the sandy-lime belt that parallels the east county line. Campaign for greater crude reserves by the majors is curbing the opportunities for independents to obtain lease or permit assignments on desirable acreage on an over-riding royalty basis, plus the drilling of a well. This changed condition is especially apparent in the sandy lime belt, where until recent months majors have elected to farm out holdings that require immediate exploratory tests.

Continental Oil Company et al, owners of a vast amount of Lea County acreage held by federal permits or leases, have discontinued farming out prospective oil producing holdings, and will drill all wildcat blocks that have geological or geophysical merit. Ample appropriations have been made since Atlantic Refining Company and Stanolind Oil & Gas Company each acquired 25 percent working interest last year to maintain a major drilling program. Standard Oil Company of Texas (The California Company) acquired 25 percent working interest in the holdings prior to the development of important oil reserves in Lea County. The above four companies have made location for E. H. Ailes 1-A-35, C SE SE 35-20s-38e, situated on a wildcat block in the east part of the county, and about 2¾ miles northwest of a wildcat drilled early this year on the group's permit assignment by Jim Brown & Reynolds on the Parcell permit, C NW SE 8-21s-38e. Parcell 1 flows about 10 barrels of fluid daily with the aid of flow valves after plugging back from 4401 feet to 4390 feet. A wildcat is due to be started shortly by Amerada Petroleum Corporation to the east of this small producer and in Andrews County, Texas.

New Rhoades Test

The Rhoades area, one-well pool in the southeast portion of Lea County, has been assigned a new test. The Texas Company, Amerada Petroleum Corporation and Columbian Carbon Company, equal owners of the Rhoades permit, are starting operations on W. H. Rhoades 2-A, SE NW SE 22-26s-37e. Their original discovery, Rhoades 1, SE NE NW 22-26s-37e, was completed in October, 1927, at 3213 feet making 44 gravity oil with a high gas-oil ratio, is currently allotted a proration quota of 52 barrels daily.

Penrose Is Extended

Stanolind Oil & Gas Company's Eve Owens 1, C SW NW 3-22s-37e, affords one-half mile east extension for the north portion of the Penrose sandy-lime area. This outpost filled 2000 feet with oil after drilling to 3725 feet, or 299 feet below sea level, and was testing late last week after using 2000 gallons of acid. This field was given five new locations the past week, including Amerada Petroleum Corporation's Hugh Corrigan 1, SW SW NE 4-22s-37e, north offset to a producer and ½ mile west of the above outpost. N. G. Penrose and Rowan-Nichols Oil Company, discoverers of the area, have authorized J. E. Elliott 1, C NW SW 27-22s-37e and Ann Walden 1, C NW NW 15-22s-37e, both offset by production. Magnolia Petroleum Company's Cary 3, C NW SE 21-22s-37e, a new test, is changing to cable tools at 1300 feet. Shell Petroleum Corporation, a new entrant, has started work on Rinewalt 1, SE SE NW 4-22s-37e.

NEW MEXICO Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
LEA COUNTY (Eunice Field)—		
Continental et al, M. Lockhart 4-A-30, se sw ne 30-21s-36e	1000	3930
Gulf, M. Campbell 3, lot 4, 7-21s-36e	25	3914
State-Bell 2-F, c ne sw 36-20s-36e	500	3848
Mid-Continent, Boren 1, c ne ne 20-22s-36e	125	3830
Phillips Pet., State-Hudson 1, c nw ne 30-20s-37e	2500	3850
Shell, State 3-N, lot 1, 1-21s-35e	325	3857
LEA COUNTY (Penrose-South Eunice Field)—		
W. H. Street et al, Wood 1, near c se ne 22-22s-37e	90	3664
LEA COUNTY (Monument Field)—		
Amerada, State 4-F, c se sw 36-19s-36e	3500	3905
Continental et al, Sanderson 4-A-11, ne sw se 11-20s-36e	3000	3865
Gulf, T. Anderson 7, c se ne 17-20s-37e	1500	3868
Ohio, Laughlin 3, c sw ne 9-20s-37e	3500	3850
Shell, State 2-E, c nw nw 13-20s-36e	2500	3875
Skelly, Van Etten 4, c ne sw 9-20s-37e	4000	3875

*Failures; †Junked; ¶Million cu. ft. gas.

Productive limits of the Monument field advanced one location north when Tide Water Associated Oil Company's State 1-J, C SW NW 17-19s-37e, flowed 60 barrels of oil per hour natural through open tubing from lime at 4034 feet, or 318 feet sub sea. Gas volume was rated at 4,000,000 feet daily, necessitating the running of tubing packer, which cut the oil flow to 42 barrels hourly but did not lower the gas volume. Gulf Oil Corporation's State-Kutter 1-C, west offset, is running 7-inch pipe at 3875 feet. Performance of wells on the north end indicate that important extensions will materialize.

Several large producers were credited to the east edge of the Monument field. Ohio Oil Company's Laughlin 3, C SW NE 9-20s-37e, averaged 80 barrels per hour for 3 hours on 1-inch choke after using 3000 gallons of acid at 3850 feet, or 296 feet sub sea, and rig has been skidded 990 feet due east to drill Laughlin 4. Odd spacing used on the latter is due to a dry hole to the northeast. Skelly Oil Company's Van Etten 4, C NE SW 9-20s-37e, flowed 170 barrels the first hour and 172 barrels the second hour through open tubing from lime at 3875 feet, with an elevation of 3547 feet. Amerada Petroleum Corporation has ventured out on the east side in starting operations on State 1-Q, C W½ NW SE 16-20s-37e, with spacing adopted to conform with north offset and also because a normal location may miss production. Other new operations includes Phillips Petroleum Company's Hobbs-Britt 3, C SW SW 18-20s-37e; The Texas Company's State University 10, C NW NW 19-20s-37e; and Stanolind Oil & Gas Company's O. J. Gilluly 2-A, C NE NE 24-20s-36e.

Tide Water Associated Oil Company's Marshall 1, C SW NE 13-21s-36e, east outpost for the Eunice lime area, failed to make a commercial oil producer after plugging back from sulphur water flow 4005 feet to 3865 feet, or 310 feet sub-sea, and will perforate casing to complete as a gasser. Devonian Oil Company's State-Evans 2, Lot 16, 3-21s-36e, northeast outpost, encountered a high water level at 3843 feet, or 311 feet below sea level, and did not make a commercial oil well after using acid. Hole has been plugged back to 3840 feet. Gulf Oil Corporation has started operations on Reeves 2, C SW NW 29-20s-37e, and W. W. White 4, NE NE 25-20s-36e. Empire Oil & Refining Company and Republic Production Company's State 1, C SE SE 12-21s-35e, has been authorized for the west edge of the Eunice field. The Texas Company's State-Lieu-Lands 9, SW SW SW 19-20s-37e, is a new project for the north end of production.

Harry W. Leonard et al's Siddall 1, C SW SW 6-20s-38e, 2¾ miles north of nearest production in the sandy-lime belt, was drilling at 3500 feet. This wildcat is reported to be checking about 97 feet higher on structure than a dry hole about 1¾ miles to the northeast. In the Hardy area, Gulf Oil Corporation has made location for E. A. King 3, C SE NW 28-21s-37e. Stanolind Oil & Gas Company is continuing development work on the east edge of the Hobbs field, and has rigged up rotary for Thorpe 30-X, C W½ SW NE 10-19s-38e. In the Langlie area, Repollo Oil Company has rigged up cable tools to drill F. Stuart 3-C, SE NE SW 10-25s-37e.

ROCKY MOUNTAIN FIELDS

Five deep tests inaugurate busy drilling season.

* * *

115,000 acres in Wyoming leases for early testing.

Casper, Wyo.—Drilling of five important deep rotary tests on Rocky Mountain structures were announced this week as the northern oil division prepares to enter one of its busiest exploratory seasons following 1936, an active year in leasing and geophysical work.

A deal was closed last week on the Baggs structure, Carbon County, southern Wyoming, by Superior Oil Company of Los Angeles, California, for the drilling of a deep test of that structure. Location will probably be either on the S. Marvin James permit in 11-12n-93w, or on the Clinton E. Bivens permit in 12-12n-93w. Contract is being let for a well to 5000 feet, if necessary.

Included in the consideration was a block of 5000 arces to the Superior. The Baggs structure is an east-west trending anticline developed in the tertiary. Surface formation is the Wasatch, and well will test for sands in the Wasatch series, where Mountain Fuel Supply Company discovery on the Powder Wash structure, 40 miles to the west and south, developed prolific oil production in the Wasatch series at 5000 feet in depth. One well has been drilled on Baggs, Red Feather Oil Company's Government 1, 35-13n-92w, which developed 5,000,000 cubic feet of gas daily in the tertiary at 760-1005 feet. Approximately 12,000 acres are leased covering the Baggs structure.

Drilling of Baggs structure will bring the total of wells underway in the Tri-State Basin of northwestern Colorado, southwestern Wyoming, and northeastern Utah, to five. In the Powder Wash field, Moffat County, Colorado, Mountain Fuel Supply Company's J. C. Donnell 1, CSE NE 31-12n-97w, is drilling at 4159 feet. On Dry Mountain structure, Phillips Petroleum Company and Anderson-Kerr Drilling Company's Government 1, CEL SE SE 19-9n-99w, is drilling at 1790 feet. On the South Vermillion Creek structure, Anderson-Kerr's Gaill Marrs 1, CSE NE 17-11n-100w, is building camp and moving in rotary.

In the Clay Basin gas field, Daggett County, Utah, Mountain Fuel resumed drilling this week after the winters shutdown and is at 1168 feet in its E. S. Lauzer 1, NW NW 27-3n-24e. The same company's Union Pacific 3, SE NE 15-16n-104w, South Baxter Basin field, Sweetwater County, southwestern Wyoming, is drilling at 1110 feet.

One of the largest single blocks of acreage put on record in Wyoming was filed in the Niobrara and Weston County court house last week, following the leasing of approximately 115,000 acres north of the Lance Creek field along the eastern rim of the Powder River Basin. With the exception of a few scattered tracks the leases taken by Fred Goodstien of Casper and associates blanket five townships. Acreage embraces Township 38 north, Ranges 63, 64, 65 west, and Township 39 north, Ranges 63 and 64 west.

The Goodstien interests have completed a deal for geophysical exploration of the area, and following a seismograph survey, the North Lance Creek area will be drilled by Midwest Drilling Company, a firm recently incorporated by Goodstien and associates.

In Rio Blanco County, northwestern Colorado, in the Rangely area, The Texas Company and The California Company will drill a deep test of the Wilson Creek structure. Location will be on Freeman Permit 1, SE SE 27-3n-94w, and well will be drilled with rotary. The Wilson Creek structure is a large circular anticline five miles in diameter and with 1000 feet of closure. Well will start in the Lower Mesa Verde about 490 feet from the base of the formation and will drill for the Sundance expected at 6600 feet.

Two tests, both failures, have drilled on Wilson Creek. In 1921 the Richmond Petroleum Company, a subsidiary of Standard Oil Company of California, drilled a well in the SE NW SE 27-3n-94w, which abandoned from mechanical difficulties at 4826 feet without reaching the Dakota. A second well was drilled by The Texas Company several years later a few feet from the first location and developed water in the Dakota, logged at 5863-5913 feet.

Two Park County Tests

Contract for two deep wells in the Badger Basin field, Park County, Northern Wyoming, one of which will go to the Dakota below the present producing horizon, the Frontier, at 8700 feet has been let by Resolute Oil Company to Manning & Martin, Inc. Contractor is rigging up for Government 1, CNE NE 20-57n-101w. Following a seismograph survey of the structure, location for the test to lower formations will be spotted. The discovery well on Badger Basin, drilled in 1930, completed for 150 barrels daily at 8732 feet.

One well completed and two were at critical depths in the Laramie Basin fields of south central Wyoming. The California Company's Wilson 3, SW NW SW 18-17n-76w, Quealy field, Albany County, made 500 barrels initial from the Dakota sand. The well cemented the 7-inch production string on top of the Sundance sand at 3883 feet, with total depth at 4010 feet. Casing was perforated with 250 holes at 3401 feet in the Dakota.

Carbon County Active

In the Medicine Bow field, The Ohio Oil Company and The California Company's William Kyle 2, CSE SE 26-21n-79w, Carbon County, is waiting on cement to set around the 7-inch casing at 5476 feet. The well cored excellent saturation in First Sundance from 5473 feet to 5544 feet, and in the Second Sundance from 5655 to 5668 feet. The same companies' Union Pacific-Cronberg 4, CSW SW 25-21n-79w, is likewise nearing critical stage. The well topped the First Sundance at 5422 feet and is drilling the top of the second sand at 5573 feet.

The Ohio Oil Company's Diamond Cattle Company 6, NW NW 35-20n-78w, an old producer deepened in the Rock River field, Carbon County, is swabbing 25 barrels of water and oil scum from the Sundance topped at 3314 feet. Hole has plugged back to 3321 feet from 3334 feet. Alba Dixon 8, NE SE 34-20n-78w, is drilling deeper at 3363 feet headed for the Sundance from the Dakota at 3161 feet.

Three new wells are getting underway in the Byron Garland district of northern Wyoming. In the Garland field, Big Horn County, Stock Oil Company's Stock-Jones 1, SWc 34-56n-97w, is spudding. The Ohio Oil Company is rigging up rotary to deepen Vernon Smith 1, CNL SE SE 33-56n-97w, an old Dakota well at 1976 feet to the Tensleep. On the Park County side of the Garland field, Kinney-Coastal Oil Company is rigging up rotary to deepen Government 3, SW NW NE 24-56n-98w, to the Madison lime from 4338 feet in the Tensleep, where a year ago the well showed for commercial oil production giving evidence of a new oil horizon in the Tensleep at Garland and extending the field, proving the northwest fault block.

MOUNTAIN STATES
Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
MONTANA		
GLACIER COUNTY (Cut Bank Field)—		
Glacier Prod. Co., Connolly 2, csw sw 6-33n-5w	180	3035
Wm. Hanlon, Allotted 2-128, e nw se 12-32n-6w	395	3035
TOOLE COUNTY (Kevin-Sunburst Field)—		
Stanley Grey, Government 7-B, 051863, sw nw sw 12-35n-3w	80	1548
Shaver Oil Co., Shaver 2, sw ne 11-34n-2w	10	1490
WYOMING		
NIOBRARA COUNTY (Middle Creek Structure)—		
Riggs Drilling Co., A. A. Spaugh 1, se sw sw 32-34n-65w	*	1755
BIG HORN COUNTY (Byron Field)—		
Ohio, Baker-Byron 2, se nw 23-56n-97w	500	5322
State 1, nec 35-55n-97w	300	5450

*Failures; †Junked; ¶Million cu. ft. gas.

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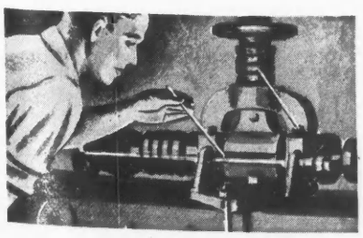

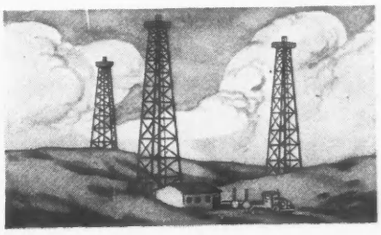

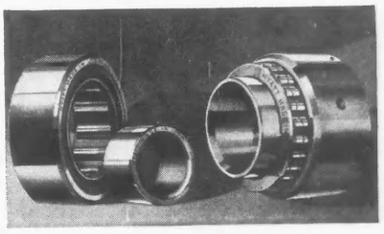

CALIFORNIA FIELDS

Wildcats hold spotlight despite several failures.

* * *

Devil's Den well cores 19 feet of solid oil sand.

* * *

Ten Section discovery re-completed in deeper zone.

Los Angeles.—Wildcat operations in California continue to be the center of interest, despite several disappointing completions during the past three weeks.

Shell Oil Company's wildcat in Orange County, Mathis 1, Section 23-4-10, has been abandoned. Drilled to 5944 feet, the hole was plugged back to 4481 feet and a bailing test made. A trace of heavy oil with water was the final result.

In the Artesia area of Los Angeles Basin, Catalana Corporation's wildcat project, Catalana 1, Section 11-4-12, was cored to 6234 feet, encountering 40 degree dips, occasioning the decision for abandonment. Cores taken from 6092 feet to 6102 feet contained good showings of oil and gas. Cores obtained from 6146 feet to 6195 feet ran mostly to sandy shale. The recovery of cores 6195 feet to 6234 feet alternated in sand and shale, with little or no showing except on the ditch. Despite the "deep enough" decision, it is understood that a geological study of the area will be renewed with the idea of a second location.

Rosedale Wildcat Abandoned

Mohawk Petroleum Company's K. C. L. No. 1, wildcat in Section 23-29-25, in the Rosedale area of Kern County, has been abandoned. This hole, located two miles west of Greeley, was drilled to 8443 feet in gray sand, with the top at 8400 feet.

In the Greeley area, Standard Oil Company's K. C. L. 11-3, depth 7868 feet, plugged to 7820 feet with the 9-inch casing cemented at 7655 feet, has been completed for 3376 barrels per day, through a 1-inch bean. The oil is 46.6 gravity. Gas production was 43,000,000 cubic feet daily. Tubing pressure was 1970 pounds and casing pressure, 1780 pounds.

Standard Oil Company's K. C. L. 12-1, in Section 30-29-27, Greeley area of Kern County, with 9-inch casing cemented at 7775 feet and water shut off no good was put on a formation test in the interval between 7775 feet and 7886 feet. The tester was left open for 24 hours and the well flowed 60 barrels in four hours and then died. Drill pipe recovery from the test was 7250 feet of oil and mud and 100 feet of salt water. Liner has now been run and the well will be placed on gas lift.

Kern County, Eastmont Oil Company's Olcese 1, wildcat east of Round Mountain in Section 16-28-29, has been completed. The hole was drilled to 1916 feet and then plugged back to 1895 feet. On a production test the well pumped 100 barrels gross in five hours, of 17.0 gravity oil, cutting 5 percent. The well now stands shut in to allow storage to be built.

At Devils Den, Den Petroleum Company's Bates 1, Section 20-25-19, Kern County, is reported to have cored 19 feet of solid sand showing oil from 4137 feet to 4156 feet. The company plans to take two more cores, and, if continued showings justify, will make a production test.

CALIFORNIA Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
LONG BEACH—		
Hilltop Pet. Co., Off 1	40	2525
TORRANCE—		
Abrams & Associates, Poetter 2	150	4500
WILMINGTON—		
Bankline Oil Co., Pac. Terminal 12	350	3579
General Pet. Corp., Interstate 1	420	3550
Geo. F. Getty, No. W-8	635	3595
Ring Oil Co., Wilmington 2	850	3610
Royalty Service Corp., Gilmore 17-5-1	500	3602
Nelson 2	960	3552
Union Pacific R. R. Co., Oilsel 7	1030	3575
ORANGE COUNTY—		
Shell, Mathis 1	*	5944
FRUITVALE—		
Western Gulf Oil Co., A. C. West 2.	130	3952
GREELEY—		
Standard, K. C. L. 11-3	3400	7813
KERN FRONT—		
Kern River Oilfields, No. 2-B	100	2050
Calif. Star Oil Co., No. 7-80	225	2670
MOUNTAIN VIEW—		
General Pet. Corp., Feeport 1	380	4852
MIDWAY-SUNSET—		
Quality Oil Co., W. P. 5	360	2250
MOUNT POSO—		
Recovery Oil Co., S. P. L. 2	250	1409
Shell, Vedder 31	800	1800
ROUND MOUNTAIN—		
Shell, Olcese 1-10	75	1878
Eastmont Oil Co., Olcese 1	600	1916
GATO RIDGE—		
Barnsdall, Tognazzini 6	600	2515
OJAI—		
St. Louis Oil Co., Pirie 3	100	1350
KERN RIVER—		
Geo. Terry & Associates, Central Point 1A	*	1990
KERN COUNTY—		
Mohawk Pet. Co., K. C. L. 1	*	8443
SANTA BARBARA COUNTY—		
Bankline Oil Co., No. 2, permit 191.	*	4187

*Failures; †Junked; ¶Million cu. ft. gas.

General Petroleum Corporation's Freeport 1, Mountain View area of Kern County, is a producer. Located in Section 19-30-29, the well was completed at a depth of 4852 feet and flowed 250 barrels of 20.7 gravity oil, 28 percent cut, the first 15½ hours.

To Drill on Doheny Ranch

Hancock Oil Company and Petroleum Securities Company are preparing to drill a joint test on the Doheny Los Alamos Ranch in Santa Barbara County. The location has been staked in Section 6-7n-32w.

The location for the exploratory test planned by Wilshire Oil Company near the southwest city limits of Bakersfield has again been changed. The well, which will be called F. & P. 1 will be drilled in the extreme southwest corner of Section 36-39-27.

Shell Oil Company's K. C. L. A-25, discovery well of the Ten Section field, has been deepened to 8240 feet and recompleted in the lower zone. The well showed an initial production rate of 3864 barrels of 33 gravity oil, with 3,397,000 cubic feet of gas. The flow was later pinched back through a 14/16-inch orifice, and is now 425 barrels of 33 gravity oil per day.

Extension Test Resumes

Operations have been resumed on the Texas Company's Martin 1, the north extension test of North Belridge which has been idle since 1931 at 5048 feet. It is understood that the hole will be completed in the "Wagon Wheel" zone. While the Richfield Oil Company's test, which was drilled a short distance to the north, failed as a commercial producer in the upper zone, the Martin well is said to correlate sufficiently high structurally to practically insure a successful completion. Addition of this well brings the number of active drilling operations in the field up to seven. One of these, Belridge Oil Company's 62 in Section 27-27-20, is due for completion soon.

Chanslor-Canfield-Midway Oil Company will drill Carter 1, a wildcat, in the Poso Creek area, Section 7-27-27, Kern County, approximately three miles west of McVan production and four miles north of Premier.

LOS ANGELES A.P.I. Chapter to meet May 11 at Long Beach

Los Angeles.—The Los Angeles Basin Chapter of the American Petroleum Institute, Division of Production, will hold its regular meeting on Tuesday evening, May 11, in the Shell Oil Company Recreation Hall, corner of Hill and Obispo Streets, Long Beach.

The program will include the following:

"Pumping Slant Holes at Huntington Beach," by D. K. Weaver, Wilshire Oil Company.

"Work of the U. S. Coast and Geodetic Survey," by G. R. Fish, U. S. Coast and Geodetic Survey.

"Practical Application of Directional Drilling in United States and Foreign Fields," by H. John Eastman, Eastman Oil Well Survey Company.

The meeting will start promptly at 7:30 p.m.

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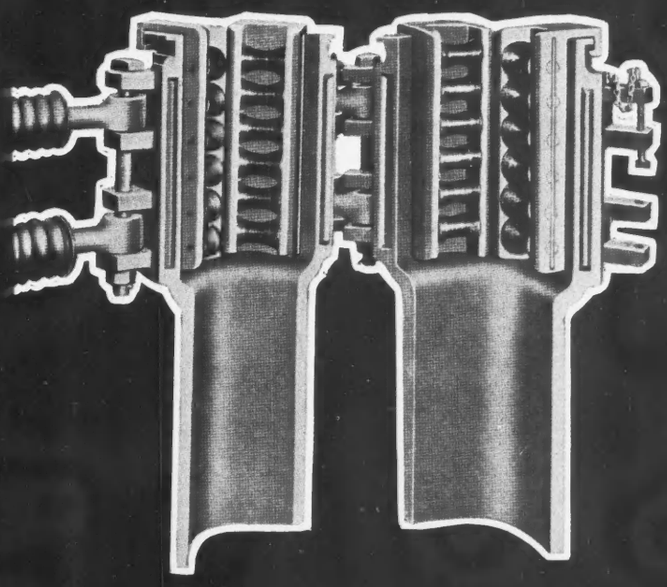

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EASTERN FIELDS

Knox completes 175-barrel well in Union Township.

* * *

New York contributes large Allegany County gasser.

* * *

Patoka field in Illinois scene of much activity.

Pittsburgh.—A 175-barrel producer in Ohio and a 20,000,000 cubic-foot gas well in New York highlighted Eastern operations of the past week. The period was marked by 43 completions, of which 12 were oil producers, 15 gas wells and 16 failures.

Knox Exploration Company has the 175-barrel producer on the William E. Durbin lease, Union Township, Knox County, and it is one of three wells completed by this operator in this county. Having a depth of 2870 feet, the test found the first Clinton formation at 2792-2824 feet, and the second Clinton at 2836-42 feet. The well was shot.

Knox Exploration Company's other completions in Knox County were gas wells on the G. W. Crise property, completed at 3066 feet, and on the J. A. Colapy property, completed at 3072 feet, which gauged 1,250,000 and 750,000 cubic feet, respectively.

Empire Gas & Fuel Company completed K. Mulvey 1, Alma Township, Allegany County, New York, with an initial gauge of 20,000,000 cubic feet per day. It topped the Oriskany sand at 4675 feet, was bottomed at 4683 feet and rock pressure was 1400 pounds.

To Deepen Dry Hole

The test on the Federal Land Bank property, Dix Township, Schuyler County, New York, abandoned as dry two months ago by Southwestern and Belmont interests, is to be deepened from its present 2201-foot level to the Medina sands by Southwestern Development Company. It failed to find production in the Oriskany horizon.

Other active wells on the New York side of the New York-Pennsylvania deep sand gas field are: Sylvania Corporation drilling below 4430 feet on the William Hendrickson farm, Troupsburg Township, Belmont Quadrangle Drilling Company moving in equipment on the Clara Lynch farm, Hartville Township, Atwater et al drilling at 3715 feet on the Herrington farm, Woodhull Township, and G. L. Cabot, Incorporated, shut down at 4164 feet on the T. H. Wing property, all in Steuben County; Belmont Quadrangle Drilling Company drilling at 2940 feet on the A. G. Hoffler farm, Leon Township, and Cunningham Natural Gas Company shut down at 3650 feet on the H. Hotchkiss farm, Randolph Township, both in Cattaraugus County, and Kaufman and others drilling at 4030 feet on the Bank Angelica farm, Allen Township, Allegany County.

On the Pennsylvania side of the field, Potter Development Company reopened its test on the Indiana Bank farm, Fairfield Township, Westmoreland County, and is drilling below 7470 feet. Potter Development Company has three active tests in Potter County: drilling below 5230 feet on the Crawford estate farm, Keating Township; drilling below 800 feet on the May C. Haupt farm, West Branch Township, and spudding on the Ida Scoville farm, Harrison Township. G. L. Cabot, Inc., is drilling below 3650 feet on the Union Joint Stock Land Bank property, Brookfield Township, Potter Development Company at 3750 feet on the H. C. Kemp farm, Farmington Township, and New York State Natural Gas Company at 1250 feet on the L. J. Roberts farm, Clymer Township, all in Tioga County.

Illinois Very Active

New work is going ahead at a rapid rate in the Illinois area. In the Patoka field, Marion County, carloads of machinery are arriving weekly. Burgess and Hempen are to start two tests on leases owned by J. W. Alexander and B. S. Livesay. George Failing Drilling Company has started rotary drilling on the Sam Pugh 40 acres, following moving of the rig from the Boye farm where drilling has been temporarily abandoned at 1600 feet. Other companies drilling in this area include Ray & Evans, the Patoka Petroleum Corporation, the Wiser Oil Company and the Sunflower Oil Company.

In White County, Illinois, more than 500 leases covering over 60,000 acres have been taken by Sun Oil Company, Maretta Oil Company, and Pure Oil Company, according to Circuit Clerk Frank McGhee. Most of the leases are in Heralds Prairie and Indian Creek Townships.

Purchase Approved

Columbus, Ohio.—Purchase of the pipe line of the Connecting Gas Company, extending from the Ohio River in Washington County to the compressor station at Sugar Grove, Ohio, by Ohio Fuel Gas Company has been approved by the state public utilities commission. Both companies are owned by the Columbia Gas & Electric Corporation. Subject to a depreciation of $1,282,595 and current liabilities of $23,705.82, the approved price was $464,050.

Illinois-Indiana meeting is to take place May 29

Robinson, Ill.—The program for the fifth annual conference of the Illinois-Indiana Petroleum Association, which is to be held at Robinson, May 29, includes some interesting technical and operating subjects.

William Bell, president of the Illinois-Indiana Petroleum Association, will preside at the opening session, which commences at 9:45 a.m. At this time four papers will be presented. C. A. Malott, geologist, Indiana University, Bloomington, Indiana, will deliver a paper on "The Nature of Favorable Oil Bearing Structures in Pennsylvania Formations in Southwestern Indiana," which will be discussed by W. C. Kneale, geologist, The Texas Company, Mattoon, Illinois. "The Seismograph and Its Application in the Illinois Basin" is the title of a paper by C. M. Boos, geologist for Independent Exploration Company, Houston. The next paper will be by Dr. A. B. Bryan, head of the geophysical division of The Carter Oil Company, Tulsa, and which is entitled "The Use of the New Type Gravimeter in Detecting Structures Favorable for Oil." Fred W. Oudt, geophysicist for Shell Petroleum Corporation, St. Louis, will discuss Dr. Bryan's remarks. The morning program will be concluded by a paper on "Recent Developments in the Illinois Basin and Their Significance." This paper is to be by Dr. A. H. Bell, geologist, head of oil and gas division of the Illinois State Geological Survey, Urbana, Illinois, and will be discussed by Verner Jones, geologist, Magnolia Petroleum Company, Decatur, Illinois.

At noon a buffet luncheon will be served at the Crawford County Country Club.

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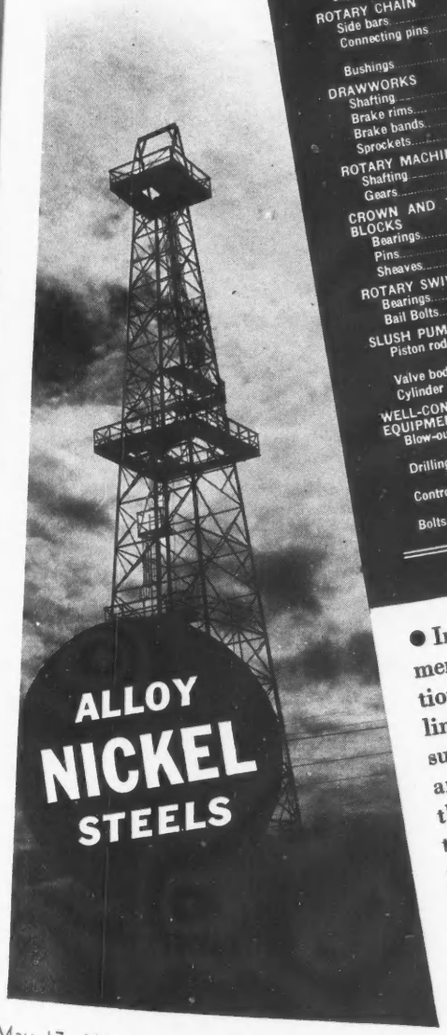
DRILLING TOOLS AND ACCESSORIES					X	X	X		X			Cast-nickel-chromium and nickel-molybdenum steel
Bit bodies								X	X			SAE 3115, 4615, 2315
Bit and reamer cutters				X		X			X			Carburized SAE 3115, 4615, and 2315
Cotter pins					X		X			X		Also oil-hardened SAE 3250, 4650, 3340
Reamer bodies										X	X	SAE X-3140; also SAE 3140
Drill collars	X	X			X		X			X		Cast-nickel-alloy steel sometimes used
Kellys	X	X			X		X			X	X	SAE X-3140; also SAE 3140
Tool joints	X				X	X	X			X		SAE X-3140; also SAE 3140
Fishing taps and dies	X						X		X			SAE X-3140; also SAE 3140
Slips	X			X			X		X	X	X	Carburized SAE 3115, 4615, 2315
ROTARY CHAIN												Carburized SAE 3115, 4615, 2315
Side bars					X	X	X	X	X	X		
Connecting pins						X			X	X	X	
Bushings						X						SAE 3135, 3140
DRAWWORKS												Carburized SAE 2512
Shafting					X			X	X	X		Oil-hardened SAE 3245
Brake rims	X											Carburized SAE 2320
Brake bands	X							X	X	X	X	
Sprockets	X											SAE X-3140, 3245, 3140
ROTARY MACHINES												Cast-nickel-alloy steel
Shafting					X		X					High-carbon nickel-molybdenum steel
Gears								X	X	X		Cast-nickel-alloy steels
CROWN AND TRAVELING BLOCKS												
Bearings					X			X	X	X	X	SAE X-3140, 3245
Pins												Carburized SAE 2315, 2512
Sheaves												Oil-hardened SAE 3245
ROTARY SWIVELS												
Bearings					X			X	X	X		Carburized SAE 3115, 4615
Bail Bolts												Carburized SAE 4615, 3130
SLUSH PUMPS												Cast-nickel-alloy steel
Piston rods					X			X	X	X		
Valve bodies and seats												Carburized "Krupp analysis"
Cylinder liners												SAE 3245
WELL-CONTROL EQUIPMENT												
Blow-out preventers					X			X	X	X		SAE 3140, 3150, 2325
Drilling valves												Carburized SAE 4615
Control valves					X			X	X	X	X	Carburized SAE 4615, 3115
Bolts and studs												Carburized SAE 4615
					X			X	X	X		
												Cast-nickel-alloy steels
					X							Forged SAE 3140
								X	X	X		Cast-nickel-alloy steels
					X							Forged SAE 3140
								X	X	X		Cast-nickel-alloy steels
					X							Forged SAE 3140
								X	X	X		SAE 3140, 3240, 2330



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67 WALL STREET, NEW YORK, N.Y.

EASTERN FIELDS

Knox completes 175-barrel well in Union Township.

* * *

New York contributes large Allegany County gasser.

* * *

Patoka field in Illinois scene of much activity.

Pittsburgh.—A 175-barrel producer in Ohio and a 20,000,000 cubic-foot gas well in New York highlighted Eastern operations of the past week. The period was marked by 43 completions, of which 12 were oil producers, 15 gas wells and 16 failures.

Knox Exploration Company has the 175-barrel producer on the William E. Durbin lease, Union Township, Knox County, and it is one of three wells completed by this operator in this county. Having a depth of 2870 feet, the test found the first Clinton formation at 2792-2824 feet, and the second Clinton at 2836-42 feet. The well was shot.

Knox Exploration Company's other completions in Knox County were gas wells on the G. W. Crise property, completed at 3066 feet, and on the J. A. Colapy property, completed at 3072 feet, which gauged 1,250,000 and 750,000 cubic feet, respectively.

Empire Gas & Fuel Company completed K. Mulvey 1, Alma Township, Allegany County, New York, with an initial gauge of 20,000,000 cubic feet per day. It topped the Oriskany sand at 4675 feet, was bottomed at 4683 feet and rock pressure was 1400 pounds.

To Deepen Dry Hole

The test on the Federal Land Bank property, Dix Township, Schuyler County, New York, abandoned as dry two months ago by Southwestern and Belmont interests, is to be deepened from its present 2201-foot level to the Medina sands by Southwestern Development Company. It failed to find production in the Oriskany horizon.

Other active wells on the New York side of the New York-Pennsylvania deep sand gas field are: Sylvania Corporation drilling below 4430 feet on the William Hendrickson farm, Troupsburg Township, Belmont Quadrangle Drilling Company moving in equipment on the Clara Lynch farm, Hartville Township, Atwater et al drilling at 3715 feet on the Herrington farm, Woodhull Township, and G. L. Cabot, Incorporated, shut down at 4164 feet on the T. H. Wing property, all in Steuben County; Belmont Quadrangle Drilling Company drilling at 2940 feet on the A. G. Hoffler farm, Leon Township, and Cunningham Natural Gas Company shut down at 3650 feet on the H. Hotchkiss farm, Randolph Township, both in Cattaraugus County, and Kaufman and others drilling at 4030 feet on the Bank Angelica farm, Allen Township, Allegany County.

On the Pennsylvania side of the field, Potter Development Company reopened its test on the Indiana Bank farm, Fairfield Township, Westmoreland County, and is drilling below 7470 feet. Potter Development Company has three active tests in Potter County: drilling below 5230 feet on the Crawford estate farm, Keating Township; drilling below 800 feet on the May C. Haupt farm, West Branch Township, and spudding on the Ida Scoville farm, Harrison Township. G. L. Cabot, Inc., is drilling below 3650 feet on the Union Joint Stock Land Bank property, Brookfield Township, Potter Development Company at 3750 feet on the H. C. Kemp farm, Farmington Township, and New York State Natural Gas Company at 1250 feet on the L. J. Roberts farm, Clymer Township, all in Tioga County.

Illinois Very Active

New work is going ahead at a rapid rate in the Illinois area. In the Patoka field, Marion County, carloads of machinery are arriving weekly. Burgess and Hempen are to start two tests on leases owned by J. W. Alexander and B. S. Livesay. George Failing Drilling Company has started rotary drilling on the Sam Pugh 40 acres, following moving of the rig from the Boye farm where drilling has been temporarily abandoned at 1600 feet. Other companies drilling in this area include Ray & Evans, the Patoka Petroleum Corporation, the Wiser Oil Company and the Sunflower Oil Company.

In White County, Illinois, more than 500 leases covering over 60,000 acres have been taken by Sun Oil Company, Maretta Oil Company, and Pure Oil Company, according to Circuit Clerk Frank McGhee. Most of the leases are in Heralds Prairie and Indian Creek Townships.

Purchase Approved

Columbus, Ohio.—Purchase of the pipe line of the Connecting Gas Company, extending from the Ohio River in Washington County to the compressor station at Sugar Grove, Ohio, by Ohio Fuel Gas Company has been approved by the state public utilities commission. Both companies are owned by the Columbia Gas & Electric Corporation. Subject to a depreciation of $1,282,595 and current liabilities of $23,705.82, the approved price was $464,050.

Illinois-Indiana meeting is to take place May 29

Robinson, Ill.—The program for the fifth annual conference of the Illinois-Indiana Petroleum Association, which is to be held at Robinson, May 29, includes some interesting technical and operating subjects.

William Bell, president of the Illinois-Indiana Petroleum Association, will preside at the opening session, which commences at 9:45 a.m. At this time four papers will be presented. C. A. Malott, geologist, Indiana University, Bloomington, Indiana, will deliver a paper on "The Nature of Favorable Oil Bearing Structures in Pennsylvania Formations in Southwestern Indiana," which will be discussed by W. C. Kneale, geologist, The Texas Company, Mattoon, Illinois. "The Seismograph and Its Application in the Illinois Basin" is the title of a paper by C. M. Boos, geologist for Independent Exploration Company, Houston. The next paper will be by Dr. A. B. Bryan, head of the geophysical division of The Carter Oil Company, Tulsa, and which is entitled "The Use of the New Type Gravimeter in Detecting Structures Favorable for Oil." Fred W. Oudt, geophysicist for Shell Petroleum Corporation, St. Louis, will discuss Dr. Bryan's remarks. The morning program will be concluded by a paper on "Recent Developments in the Illinois Basin and Their Significance." This paper is to be by Dr. A. H. Bell, geologist, head of oil and gas division of the Illinois State Geological Survey, Urbana, Illinois, and will be discussed by Verner Jones, geologist, Magnolia Petroleum Company, Decatur, Illinois.

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DRILLING TOOLS AND ACCESSORIES												
Bit bodies								X	X	X	X	Cast-nickel-chromium and nickel-molybdenum steel
Bit and reamer cutters									X	X		SAE 3115, 4615, 2315
Cotter pins									X			Carburized SAE 3115, 4615, and 2315
Reamer bodies									X		X	Also oil-hardened SAE 3250, 4650, 3340
Drill collars	X	X							X		X	SAE X-3140; also SAE 3140
Kellys	X	X							X		X	Cast-nickel-alloy steel sometimes used
Tool joints	X								X		X	SAE X-3140; also SAE 3140
Fishing taps and dies	X								X		X	SAE X-3140; also SAE 3140
Slips	X								X		X	Carburized SAE 3115, 4615, 2315
ROTARY CHAIN												Carburized SAE 3115, 4615, 2315
Side bars	X											
Connecting pins												SAE 3135, 3140
Bushings												Carburized SAE 2512
DRAWWORKS												Oil-hardened SAE 3245
Shafting		X										Carburized SAE 2320
Brake rims		X										
Brake bands		X										SAE X-3140, 3245, 3140
Sprockets												Cast-nickel-alloy steel
ROTARY MACHINES												High-carbon nickel-molybdenum steel
Shafting												Cast-nickel-alloy steels
Gears												
CROWN AND TRAVELING BLOCKS												SAE X-3140, 3245
Bearings												Carburized SAE 2315, 2512
Pins												Oil-hardened SAE 3245
Sheaves												
ROTARY SWIVELS												Carburized SAE 3115, 4615
Bearings												Carburized SAE 4615, 3130
Bail Bolts												Cast-nickel-alloy steel
SLUSH PUMPS												
Piston rods												Carburized "Krupp analysis"
Valve bodies and seats												SAE 3245
Cylinder liners												
WELL-CONTROL EQUIPMENT												SAE 3140, 3150, 2325
Blow-out preventers												Carburized SAE 4615
Drilling valves												Carburized SAE 4615, 3115
Control valves												Carburized SAE 4615
Bolts and studs												
												Cast-nickel-alloy steels
												Forged SAE 3140
												Cast-nickel-alloy steels
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ner and entertainment will be presented. The guest speaker will be Paul Blazer of Ashland Refining Company, Ashland, Kentucky, who will discuss "Some Thoughts of the Economics of the Oil Industry." A motion picture entitled "Killing Wild Wells and Fires" is to be shown through the courtesy of Halliburton Oil Well Cementing Company.

EASTERN FIELDS

Completions

OHIO

Company, Well and Location	Init. Prod. Bbls.	Depth
ASHLAND COUNTY—		
Ohio Fuel Gas Co., J & G. Davidson 1	*	2567
ATHENS COUNTY—		
Gross & McCune, Floyd Dixon 1	4	1148
C. W. Nuzum et al, John P. Poston 1	¶	1672
Chesmar Oil & Gas Co., Thomas E. Dickson	*	1132
BELMONT COUNTY—		
Union Gasoline & Oil Corp., Nick Dyken 5	5	1902
COSHOCTON COUNTY—		
Little & Sugar, G. C. Clemens 6	*	1017
FAIRFIELD COUNTY—		
City Natural Gas Works, John Stuckey 7	¶	2120
GUERNSEY COUNTY—		
Hayes Ferguson & Co., Elizabeth Ney et al 1	*	1066
HOLMES COUNTY—		
Mehowa Oil & Gas Co., H. E. Miller 1	37	2884
Lydia Oil & Gas Co., Gladys Bell	¶	930
JEFFERSON COUNTY—		
Jones & Schilling, Charles W. Welling 1	1½	1358
KNOX COUNTY—		
Knox Exploration Co., William Durbin 1	175	2870
G. W. Crise 1	¶1¼	3066
J. A. Colapy 1	¶¾	3072
LICKING COUNTY—		
Gail Earley, Delbert Layman 1	4	670
Blue Rock Oil Co., V. L. Smith 3	50	3099
Baughman & Early, D. O. Layman 1	*	678
LORAIN COUNTY—		
William Dempsey, Joseph Forthofer	*	2370
MEIGS COUNTY—		
Goodfellows Co., Elisa Jividen 11	¶¼	2001
MONROE COUNTY—		
N. T. Staudt et al, Alva S. Jackson 1	5	1582
Christ Keevert 3	¶	1700
Hines Brothers et al, Lee Hines 5	2	740
MORGAN COUNTY—		
W. T. Bowman, Adam Thompson 9	½	440
J. V. Bowman, Oliver Edgerton	¶½	689
Hopewell Gas & Fuel Co., Everett Fisher 2	*	4085
Speary Oil & Gas Co., Howard Davis 1	*	983
PERRY COUNTY—		
C. L. Bullock et al, Thomas & Mary Monahan 7	15	1087
Preston Oil Co., Machael Emmert	¶	2910
Daily Crude Oil Co., Robert Deaver 7	¶	1078
SUMMIT COUNTY—		
Brooks Johnson, Robert Gillie 6	¶½	600
WASHINGTON COUNTY—		
John Wagner & Co., Milton D. Schramm 4	*	1400
Ray Devitt et al, Munn Fisher	*	663

NEW YORK

ALLEGANY COUNTY—		
Empire Gas & Fuel Co., K. Mulvey 1	¶20	4683

WEST VIRGINIA

JACKSON COUNTY—		
Mountain Iron & Supply Co., J. W. Kelley et al 5	*	1628
MASON COUNTY—		
J. C. Blair, Mary Conrad et al	*	3472
MINGO COUNTY—		
R. E. Floyd & G. S. Brown, W. R. Spaulding 6	¶	1340
ROANE COUNTY—		
Hudley & Petty, Hester A. Lee 1	*	1600
O. D. Jones et al, W. P. Westphal 1 (Lake Field)	¶2½	1625
WETZEL COUNTY—		
Manufacturers Lt. & Heat Co., John A. Rush 1	*	3196
George Eagan, Wilfred Moore 1	¶	533
WIRT COUNTY—		
Glenn W. Roberts, Geo. W. Hall 6	*	1786
Service Oil Co., C. C. Menefee 1	*	1750

PENNSYLVANIA

BUTLER COUNTY—		
Youngblood & Co., William Goehring 1	4	1610

*Failures; †Junked; ¶Million cu. ft. gas.

MICHIGAN FIELDS

State's production near high level of last year

* * *

Plan conservation law like New Mexico's

Mt. Pleasant, Mich.—Showing 1500 feet of fluid from 3670 feet, Mammoth Producing & Refining Company's Manyette 1, SE NE SW 3-18n-1w, Gladwin County, approximately one mile northwest of Buckeye pool production indicated an important extension to the play this week. The Manyette was reported structurally lower than the field. It was to be acidized this week. If productive, the well would open a big Sun Oil Company drilling play as that company virtually dominates the acreage in the district.

Two miles west, Voorhees Drilling Company's Esten 1, NE SW SE 5-18n-1w, was reported 125 feet off the main structure based on Dundee lime, the productive lime of the play. Operators planned to drill ahead without setting casing.

George Hanner's Armstrong 1, NE NE SW 23-18n-1w, Gladwin County, important mid-way test between the developed north and south pools in Buckeye township, appeared commercial this week following acid treatment on May 10. Test flowed up to 30 barrels an hour after swabbing. Whether this establishes approximately 1200 undrilled acres between the two pools is problematical. Geology indicates a marked saddle between the pools.

Thirty-one completions were reported for the week in the state including seven scattered Dundee lime wildcat test failures.

Production at Year's Peak

The Michigan Oil and Gas Association reported the state's daily average production for April at 44,858 barrels, the highest since early 1936. Total state production was estimated at 1,300,000 barrels. The Buckeye field in Gladwin produced an average of 17,503 barrels daily under a varying prorate to lead all other areas. Porter-Yost in Midland County averaged 11,951 barrels daily and Clayton in Arenac 3234 barrels. Crystal had fallen below 2000 barrels.

Operators in the Gladwin - Buckeye district again cut down this week in an effort to bring production in line with available market demand. Wells were cut from a 300 to 200 barrels base allowable with a tentative 10 percent per well over 200 barrels.

The field averaged 17,503 barrels daily in April and the market will stand little more this month, according to pipe line officials. Meanwhile, the potential has been boosted from 30,000 to 55,000 barrels. Several operators have shut down on top of the producing sand and will wait for a market before drilling in.

Meanwhile, the Michigan legislature has before it for passage a state oil control bill modeled closely along the New Mexico pattern. It has drawn approval of the Oil and Gas Association of Michigan but is being bitterly fought by several small groups. Operators back of the bill admit it has but a 50-50 chance to pass in the present session.

Basically, the bill would place control in the hands of the conservation department, which now has partial jurisdiction but has no authority in such matters as proration or restricting of drilling. Its chief powers now are supervising in protecting formations and in an advisory capacity.

Harrisburg.—Laughner Oil & Gas Company, with offices in South Heights, Beaver County, Pennsylvania, has applied to the public utility commission for authority to extend its lines into Harmony and Economy Townships, Beaver County, and Sewickley Heights, Sweickley, Franklin and Marshall townships, Allegheny County, where natural gas service is not now available to residents.

MICHIGAN

Completions

Company, Well and Location	Init. Prod. Bbls.	Depth
ARENAC COUNTY—		
McClanahan Oil Co.'s Seignous 4, nw sw se, 3-20n?4e	200	2614
L. E. Doyle's Peavy 1, se sw se, 4-20n-4e	35	2710
Hal Be Oyle's Barrie 2, nw ne se, 9-20n-4e	¶1	1100
Pet. Corp.'s LaFave 1, sw sw ne, 17-18n-5e	*	1400
GLADWIN COUNTY—		
McClanahan Oil Co.'s Avery 1, sw nw nw, 10-17n-1e	30	3642
Cryden Pet.'s Gary 1, nw ne ne, 34-19n-1w	*	3802
Marshal Bauman's State 1, sw ne se, 2-18n-1w	105	3668
Thompson 1, ne nw sw, 14-18n-1w	*	3669
Fortney Oil Co.'s Phillips 1, sw se nw, 25-18n-1w	40	3600
C. L. Maguire's Fritzwater 1, se se ne, 26-18n-1w	30	3624
W. H. Thourlby's Banchoff 1, se se ne, 2-18n-1w	*	3671
Rex Oil Co.'s Hall 1, se ne ne, 35-18n-1w	600	3590
E. S. Beaver's Havens 1, se nw nw, 36-18n-1w	700	3600
Upton 1, nw se nw, 36-18n-1w	490	3601
F. O. Whitelow's Fritzwater 1, se se se, 26-18n-1w	140	3604
John S. Orr's Flandoffer 1, se se sw, 2-18n-1w	12	3662
GRATIOT COUNTY—		
E. J. Posselius' Cushman 1, c ne sw, 3-10-4w	¶3	980
W. E. Ross' Standish 2, c ne nw, 9-10n-4w	¶1½	1035
ISABELLA COUNTY—		
G-Lee-P Oil Co.'s Grubb 1, nw ne sw, 2-14n-3w	60	3588
Chartier Oil Co.'s Fitzpatrick 1, nw 12-15n-4w	100	3710
Burnstein Oil Co.'s Sherman 1, ne ne se, 1-16n-5w	*	100
Socony Vacuum's Murphy 1, se ne, 6-16n-3w	*	3881
Pure Oil Co.'s Ryckman 3, sw sw ne, 33-15n-6w	425	3709
McClanahan Oil Co.'s Beutler 3, nw sw nw, 34-15n-6w	200	3610
Morris Oil Co.'s Dimon 1, se sw sw 34-14n-3w	40	3700
MONTCALM COUNTY—		
Charles Weller's Herzog 1, c nw se, 14-12n-8w	*	3526
Burnstein Oil Co.'s Heneymer 1, sw sw se, 26-11n-5w	*	350
Rex Oil Co.'s Church 1, se nw, 17-12n-5w	*	3470
C. W. Teater's Voss 1, se se sw, 20-12n-9w	*	3440
OGEMAW COUNTY—		
M. J. Ingold's Zettle 3, nw sw sw, 13-22n-1e	30	2845
R. E. Gallagher's Gussman 1, sw ne se, 24-22n-1e	30	2790
Weber Oil Co.'s Quilci 2, ne se sw, 36-22n-2e	35	2630
WASTHENAW COUNTY—		
Ypsilanti Dev.'s Vorhees 1, ne se, 32-2s-7e	*	4000

*Failures; †Junked; ¶Million cu. ft. gas.

IMPORTANT WILDCAT TESTS

FLORIDA

LAKE COUNTY—Oil Dev. Co. of Fla.'s Gulf Expl. Co 2, se se 17-24s-25e, elev attempting to run 6⅝-in csg at 2600 ft, td 6126 ft (corrected td).

LEVY COUNTY—Fla. Oil Discovery Co.'s Sholtz 1, sw ne 9-15s-13e, steel dk & rur.

NASSAU COUNTY—St. Mary's River Oil Corp.'s Hilliard Turpentine Co. 1, nw ne se 19-4n-24e, elev 110 ft, dr with CT at 1443 ft last report.

POLK COUNTY—Edw. A. Hill's Polk County Lbr. Co. 1, nw nw ne 32-25s-25e, dk.

MISSISSIPPI

GEORGE COUNTY—Cleve Love et al's J. J. Newman Lbr. Co. 1, c sw 9-1s-8w, dk.

HARRISON COUNTY—G. A. Hesse et al's (formerly Big Ridge Oil Co.) Hingin 1, c ne 12-7s-10w, elev 69 ft, sd 2332 ft, pyrites & lime.

HINDS COUNTY—State of Mississippi's Fee 2, nw nw 25-6n-1e, 3 to 5 mil ft gas & flow fresh water after pb to 2480 ft, old td 5529 ft.

LAMAR COUNTY—Sun Oil Co. et al's Mrs. K. Talley 3, 1600 ft s & 1350 ft nwc 33-4n-15w, rur.

JONES COUNTY—Snow-Black Pet. Co.'s Cranford 1, s½ nw 29-7n-12w, tested 2 fourbles drilling fluid 3480 ft, coring 4100 ft.

PIKE COUNTY — Acadian Prod. Corp.'s Bales 1, c se nw 24-7n-2w, dk & mir.

SIMPSON COUNTY—Goodwill O. & G. Co.'s Berry 1, 33-2n-4e, dk & rog.

YALABOUSHA COUNTY—Skuna Dev. Co.'s (H. H. Wamble et al) Mrs. T. A. Turner 1, se sw ne 26-25n-6e, lcn.

MICHIGAN

GRATIOT COUNTY—Gulf Lyon 1, 26-9n-2w, dr 600 ft. H. B. Cowdrey's DeVuyst 1, 11-10n-2w, rig. Sam Siegel's Kerr 1, 36-10n-1w, sd 2200 ft.

HILLSDALE COUNTY—Jacob Beck's Fee 2, 15-6s-3w, dr 1500 ft. Hughes Heinig's Daley 1, 10-7s-4w, sd 1400 ft.

KENT COUNTY—Central Michigan's Fletcher 1, sec 25-7n-10w, dr 2500 ft. James E. Flannigan's Friedli 1, 26-7n-9w, dr 2380 ft. Michigan Oil Exploration's Groff 1, 35-7n-9w, sd 5200 ft.

OTSEGO COUNTY—Barton & William's Uill 1, 9-32n-3w, mim. Harley William's Raae 1, 15-30n-1w, sd 2280 ft. Dion Geraldine, tr's Fee 1, 34-30n-3w, lcn.

SAGINAW COUNTY—T. F. Caldwell, Inc.'s Bank 1, 10-10n-5e, dr 1600 ft. Doran & Hilliard's Dobs 1, 33-11n-1e, lcn.

MISC. COUNTIES—Arenac—B. A. Bartlet's Filip 1, 32-19n-4e, rig. Cass—L. T. Barber's Beebe 1, 3-5s-15w, test so 1050 ft. Iosco—Pabst Oil Co.'s Monfort 1, 8-22n-6e, lcn. Isabella— Gulf Koch 1, 1-13n-4w, dr 2950 ft. Missaukee—Rex Oil Co.'s Meekoff 1, 30-21n-6w, dr 3000 ft.

WYOMING

CONVERSE COUNTY—Chadron Osage Oil Co.'s State 1, sw sw sw 16-32n-69w, dr 2480 ft. Wyoming Southern Oil Co.'s Salisbury 2, nwc nw se 17-32n-69w, making 7,500,000 cu ft gas from 454 ft. Jennie Everett 1, nwc sw 26-32n-69w, dr 50 ft.

PARK COUNTY—General Petroleum Corporation's Government 1, nw nw nw 33-47n-100w, pb from td at 6076 ft to run production test.

SHERIDAN COUNTY — Sheridan Syndicate's Allison 1, sw sw se 15-55n-85w, abd 3392 ft.

WESTON COUNTY — Conway Oil Co.'s Government 1, se se nw 7-41n-60w, testing making around 20 bbls oil and water daily from plugged depth at 2345 ft.

St. Paul, Minn.—An application of the Northern Natural Gas Company to extend its pipe lines from the Ford plant to the Waldorf Paper Products Company will be heard by the city council May 27. The proposal is opposed by railroad, truckers' and coke workers' unions.

ABBREVIATIONS

The following abbreviations, signs, etc., are used in completions and wildcat reports in THE OIL WEEKLY.

*—*dry hole abandoned well.*
‡—*salt water (completions).*
†—*junked and abandoned.*
¶—*million feet of gas.*
abd—*abandoned.*
bbls—*barrels.*
br—*building rig*
b.s.—*basic sediment*
csg—*casing.*
co—*cleaning out*
dd—*drilling deeper.*
dk—*derrick.*
dr—*drilling.*
fsg—*fishing.*
ft—*feet.*
hfw—*hole full of water.*
in—*inches.*
lcn—*location.*
m—*milling.*
mim—*moving in materials.*
mit—*moving in tools.*
mot—*milling on tools.*
n, s, e, w—*north, south, east, west.*
oih—*oil in hole.*
owdd—*old well drilling deeper.*
owpb—*old well plugging back.*
pb—*plugged back or plugging back.*
r—*reaming.*
rog—*rig on the ground.*
rur—*rigging up rotary tools.*
rust—*rigging up standard tools.*
sd—*shut down.*
sdtr—*sidetracking.*
sg—*show gas.*
si—*shut in.*
so—*show oil.*
so&g—*show oil and gas.*
spd—*spudding.*
sr—*straight reaming.*
sw—*salt water.*
td—*total depth.*
ur—*underreaming.*
wih—*water in the hole.*
wo—*workover.*
wocs—*waiting on cement to set.*
wosr—*waiting on standard rig.*

NEBRASKA

DAWES COUNTY — Stephens Petroleum Corporation's S. J. Palmer 1, nw sw 10-35n-50w, set csg at 2300 ft and preparing to drill plug.

LINCOLN COUNTY—Smith & Wright's Hansen 1, csw nw 24-15n-21w, dr 1907 ft.

SIOUX COUNTY—J. M. Huber Corporation's Morgan 1, csw sw 32-35n-56w, dr 2671 ft.

UTAH

GRAND COUNTY—Cane Creek Oil Co.'s Government 1, nw sw 31-26s-21e, mim. Columbia Crude Corporation's Rath-Government 1, ne sw 12-25s-20e, testing at 2158 ft.

EMERY COUNTY — Continental & California's Unit 1-A, nw nw 27-33s-11e, dr 2776 ft.

TEXAS GULF COAST

AUSTIN COUNTY—R. L. Hopkins & J. T. McGregor et al's Reineche 1, se of Bellville, J. Stephenson sur, dr shale 4200 ft.

BRAZORIA COUNTY — Pure's Slade 1, Peach Point prospect, S. F. Austin sur, abst 20, heaving shale 7842 ft, fsh.

HARRIS COUNTY—H. J. De Arman et al's Tyrell & Garth 1, Cedar Bayou prospect, L. Heminway sur, dr shale 5329 ft. Stanolind's Oates 1, Clinton area, C. Martinez sur, dr plugs 8088 ft. Superior's Butler 1, Bammel area, J. Ehrhardt sur, dr shale 2005 ft. Texas Gulf's Gillespie 1, Aldine area, S. Contreras sur, sd 7100 ft.

JEFFERSON COUNTY—Magnolia's Phelan 1, sw of Amelia, Cheek area, S. Stivers sur, dr shale 8181 ft.

LIBERTY COUNTY—Jack Frazier's Hanchey 1, Hardin area, H. B. Johnston sur, ru.

MATAGORDA COUNTY — Continental's Robbnis 2, Citrus Grove prospect, C. Franz sur, abn 11,612 ft. Continental's Hawkins 2, Sheppards Mott area, D. McCarthy sur, dr shale 832 ft. Sun's Craig 2, Hawkinsville area, J. Williams sur, coring shale 5702 ft. United North & South Dev. Co.'s (Receivers) C. O. Stoddard 1, sw of Buckeye, M. Cotton sur, testing at 9786 ft.

POLK COUNTY—G. E. Gates' Jackson 1, se of Onalaska, E. Clark sur, running an electrical logging device 5506 ft.

SAN JACINTO COUNTY—Cockburn et al's Whitten Estate 1, Keno area, Wm. West sur, ru.

WALLER COUNTY—Red Bank Oil Co.'s Chapman 1, n of Hempstead, M. Donohoe sur, abn 4808 ft. Stanolind's Hargrove 1, Katy area, T. S. Reese sur, dr shale 6719 ft.

WHARTON COUNTY—Sam G. Harrison's Harfast 1, n of Louise, L. Conkrite sur, dr shale 3827 ft.

MONTANA

JUDITH BASIN COUNTY — Fletcher P. Hunt's Hobson 3, nw se ne 30-14n-15w, sd 1400 ft.

PONDERA COUNTY—Kirk Oil Co.'s Kellog 1, se nw ne 31-28n-4w, dr 2291 ft.

YELLOWSTONE COUNTY — Broadview Dome Oil Co.'s Halbritter-Stoltenberg 1, se ne 18-3n-22e, spd.

SOUTH TEXAS

CORPUS CHRISTI DISTRICT

ARANSAS COUNTY—Barnsdall Oil Co.'s Kate Edwards 1-A, Wm. Lewis sur, set & cemented 9⅝-in csg at 7524 ft, will dr plugs & dr ahead, td 7548 ft.

BEE COUNTY—Butler & Turner's J. R. Scott 1, Jose Maria Uranga gr, dr 850 ft. Lonnie Glasscock's J. B. Ablinger 1, John Ryan sur, rec all ds prep to clear hole to test, top Yegua snd 5932 ft, td 5945 ft.

BROOKS COUNTY—Standard Oil Co. of Texas, Mestinas Oil & Gas Co. 1, R. G. Salinas sur, coring snd 3416 ft; Mestina O. & G. Co. 6, R. G. Salinas gr, coring 2372 ft.

CAMERON COUNTY—Saxet Prod. Co.'s & A. W. Phillips' Port Isabel et al 1, share 29, Espiritu Santo gr, sp & sd. Stapper Pet. Corp.'s Port Isabel Irr. Co. 1, blk 17, Espirito Santo gr, dr 7720 ft.

DEWITT COUNTY—J. K. Davis Jr.'s & Ira L. Keith's Afflerbach 1, L. V. Criswell sur No. 44, abnd after Yegua tested sw.

GOLIAD COUNTY—Brown & Wheeler's J. R. Kauffman 1-G, P. Trevino sur, dr 4536 ft, will abnd 4605 ft, ran 30 ft low on top Yegua. Goliad Oil Co.'s S. E. Cole 1, lot 33, range 4, Goliad Town gr, dr 3870 ft.

HIDALGO COUNTY—Daskam Bros.' Osca Daskam 2, por 45, Daskam subd, d & a after running electric formation tester 2500 ft to 4000 ft, td 4256 ft.

JACKSON COUNTY—Cockburn Oil Co. & T. Hargrove's Santa Theresa Farms 1, I&GN sur, blk 1, secured 30-day extension.

JIM WELLS COUNTY—John Camp Prod. Co.'s J. W. Bird 1, Los Presenos de Abajo gr, coring 3900 ft. Magnolia Pet. Co. et al's A. A. Seeligson 7, Los Jaboncillos sur, ru, wo draw works. Smith Drlg. Co.'s W. D. Wade 1, 1 mi east of production in Sandia, dr below 3000 ft. Tsesmelis' & Reese's Martha Earhart 1, John Suggs sur, trying side wall test at 3100 ft, td 4005 ft. Wellington Oil Co.'s Clara Driscoll Sevier 1, La Anima Sola gr, ab 545, dr 2350 ft.

KARNES COUNTY — Victoria Dr. Co.'s John Yanta 1, S. G. Hardaway sur, resuming operations, td 1575 ft.

LIVE OAK COUNTY—R. A. David's John & J. P. Marback 1, Stiphen Hays sur, sp. Empire Fuel & Standard Co. of Texas' George West 1, George West sub, dr 1800 ft. R. H. Feltner's Snager Ranch 2, GC&SF sur 385, sp. F. D. Salter et al's I. W. Griffith 2, sec 20, sd, will re-dr, td 887 ft. Sam Wilson Jr.'s Southwestern Life Insurance Co. 1, sec 57, Simmons subd, dr 1425 ft.

NUECES COUNTY—I. J. Allen & Seaboard Oil Co.'s J. O. Chapman et al 4, sec 38, Laureles Farm Tr., d & a 6600 ft. Camp Prod. Co.'s C. Phillip Wardner Tr. 1, Charles E. Stratton subd, sec 12, flowing 50 bbls of 49.3 grav oil, 40 bbls mud, ⅛-in choke, tp 1400 lbs, cp 1800 lbs, may have to recement, td 6715 ft. Clarkwood Oil Co.'s H. B. Baldwin 1, blk 11, Russell Farm Lots, dr 5500 ft. Lonnie Glasscock's Kansas Life Ins. Co. 1, Luciano Rivers sur, ab 287, prep to core 5916 ft. Heyser & Heard's A. J. Kosar & Snyder 1, J. M. Cody sur, d & a 4870 ft. W. L. Hinds' Lucy J. Rivers 1, sec 301, sp & sd. Phillips Pet. Co.'s (J. T. Cox) John Harney 1, share 11, Harney lands, Phillips took over well, ru to dd to 8000 ft, td 4279 ft. Seaboard Oil Corp.'s James Luby 1, blk 4, Luby subd, alo Alto gr, mim. Shell Pet. Co.'s State of Texas 1, Laguna Madre Bay, piling driven & sd. Southern Minerals Corp.'s Richard King 1, sec 32, King Farm lots, dr 6237 ft. Taylor Pet. Co.'s J. V. Styles 1, Rowsey sub in sec 18, woc 500 ft. United Prod. Corp.'s W. H. Harvey 1, perf 7382-95, 30 shots, flowing 6 to 8 bbls 40 grav oil, 75 percent wash water, per hr, ⅛-in choke, tp 1425 lbs, cp 1650 lbs, 7-in csg 7460 ft, td 9002 ft. Wellington Oil Co. & Seaboard Oil Corp.'s L. M. Duggar 1, sec 125, Geo. H. Pauls subd, flowing 16 bph 3/16-in choke, tp 430 lbs, cp 1020 lbs, mostly pipe line oil.

SAN PATRICIO COUNTY — Danrey Oil Co.'s Jean Davis 1, Wm Boyd sur, drk.

VICTORIA COUNTY—Magnolia Pet. Co.'s Willie Beck 1, TNORR sur, woc 3584 ft in pb td, old td 4812 ft.

WILLACY COUNTY—Shell Pet. Co.'s Yturria Lnd. & C. Co. 1, San Juan de Carritos gr, sh 64, dr 9325 ft.

LAREDO DISTRICT

DUVAL COUNTY—A. J. Brinkoeter's P. Garza de Rodriguez 2, sur 212, td about 2600 ft, closed well. Hiawatha Oil & Gas Co.'s Southland Life Insurance Co. 2, sec 15 Ball Ranch sub, perf 5100-05 ft, prepared to run tubg, well got out of control, blew out and still running wild, td 5939 ft. Highland Oil Co.'s A. Faris 1, sec 9 Sweden subd, dr 4500 ft. Humble O&R Co.'s Roos Brothers 1, sur 119, running tubg, getting ready to swab, swabbed down, stdg 300 ft, fluid 97 percent oil, 3 percent sw or wsh wtr, rigging up to pump, td 2871 ft. George Parr Oil Co.'s F. Vaello Puig 1, San Andres gr, dr 3200 ft. Penn-Palangana Oil Co. et al's C. K. Gravis 1, sec 254, dr below sur csg. Reynolds & Richardson's D. Ruiz Estate 1, sec 125, D&A 3896 ft. Smith & Storey's Smith 1, blk 9 Sweden subd, dr 400 ft. Trahan & Tuttle's J. C. Megerle 1, sur 245, dr 900 ft. George V. Viteri et al's Emilio E. Cadena 1, blk 6, G. Stewart O&G subd, dr 1200 ft.

JIM HOGG COUNTY—Nordan & Morris' W. H. & R. T. Badger 1, sur 640, ru.

McMULLEN COUNTY—H. K. Boysen's J. E. Murphy 1, J. E. Murphy sur, dr 2100 ft, top Upper Gov't Wells 2060 ft, dr shale. Harrisons & Danvers' J. A. Jungman 1, M. Hely sur, dr 400 ft. W. L. Hinds' Douglas Rhodes 1, N. Nadler sur, lcn. Humble O&R Co.'s H. C. Edrington 4, sur 65, Cole tested sw, now in Chernoskey sand, running dst 2271-78 ft, td 2278 ft. W. P. Howard's B. C. Claunch 8, M. Hely sur, lcn. Howell Oil Co.'s J. H. Martin Hrs. 1, sur 213, dr 1835 ft. Edwin M. Jones' Harry Ezzell 3, Thos. Adams sur, 10-in csg set at 1265 ft, cored dry Carrizo and pb to Gov't Wells sand, ran electric formation tester to dd, td old hole 5200 ft. J. T. Lanier's E. R. Hagist 1, sur 481, dr below sur csg. L. J. Snyder et al's and Danvers' & Harrison's B. C. Claunch 1, M. Hely sur, initial prod 75 bpd and 5 percent wtr on pump, td 1058 ft.

STARR COUNTY — Calderoni-James-Follette's Francisce Rodriguez 1, blk 6, sh 56, por 80 J. of Camargo, woc. John H. Clopton et al's Dionicio Tujerina 4, blk 12, share 14-C, por 80, J. of Camargo, sd for heavier rig, td 1630 ft. Cook-Maris, Arnold's Starr County Cattle Co. 2, Cook, Maris, Arnold sur, por 89, sd below 2200 ft. W. F. Dolgener et al's Y. Garcia 1, share 7-B, por 71, J. of Mier, sand 400-400½ ft, coring. K. E. Merren's Starr County Cattle Co. 1-A, blk 34, por 89, dr below 5000 ft. Henry Mode et al's Kelsey Bass 1, blk 7, Kelsey Bass sub, por 86-87, woc. Moss & Hears's S. B. Ricaby 2, por 83, J. of Camargo, prep to resume dr 1911 ft. F. P. Schwab & Fren Foster's Antioco Munoz et al 1, Javali gr, dr 1200 ft, prep to core for Gov't Wells. Transwestern Oil Co. et al's T. B. Slick Est. 2, sec 527, pb, td 4700 ft, to straighten hole, woc hole 6 in off, old td 5659 ft.

WEBB COUNTY—Bollings & Coffey's A. Villareal 1, blk 17, sur 768, dr 1680 ft. Eugene Garner, Jr.'s R. Saldivar 2, sur 657, set csg around 1000 ft, td 1000 ft Ina Oil & Ref. Co.-F. M. Shaver's W. E. Trafton 1, sur 281, part of tools on lse stdg. Kepley Prod. Co.'s W. C. Billings 1, sur 6, sd 2050 ft. J. W. Magee's E. Garcia 1, blk 21, Henry James subd, sp, td 40 ft. Locke Purnell & Cole Pet. Co.'s Rosa Benavides 1, sur 677, dr sh 2140 ft.

ZAPATA COUNTY—Lewis Prod. Co's Martinez 1, Blk 123 Sh 1, El Crullo Gr. sp. H. Q. Lewis' S. Benavides 1, blk 39, Fansler & O'Hern subd, dr 1850 ft. Tundell Proo. Corp.'s I. Ramirez 1, blk 25, Chittenden sub, dr 2030 ft. Sylvan Price's Maryland Trust Estate 1, c blk 15, sur 314, abnd 3514 ft. J. O. Sheffield's C. H. Buck 1, sur 273, lcn. Westheimer & Daube's E. Lopez 1, blk 7, sur 288, ru.

SAN ANTONIO DISTRICT

ATASCOSA COUNTY—Helvetia Oil Co.'s Susie Pratt 2, F. de la Garza sur. SD will rework later 3460 ft.

BASTROP COUNTY—Marts' & Beavans' R. A. Harris 1, Timothy McKean sur. dr 1600 ft. Spokane Oklahoma O & G Co.'s Caldwell 2, Antonio Navarro sur t/Eagleford 2190 ft. D & A 2412 ft.

BEXAR COUNTY—Algra Oil Co.'s Edward G. ePters 1, Miguel Gotari sur, ru w heavier rig. td 815 ft. American Gas Co.'s Oliver 5, resume dr. td 3425 ft. Carle Chemical Co.'s Frank P. Carle 1, 343-ac tr. dr ch 96 ft. Albert Chmel's Theresa McIntosh 1, J. W. Garrity sur No. 19 temp abnd 805 ft. C. E. Euton's Louis F. Ridder Jose M. Baerrera sur showing for small gas well RP 300 lbs. td 835 ft. L. K. Oil Co.'s J. F. & F. X. Bilhartz 1, F. Rolen sur 48, temp abnd td 40 ft.

CALDWELL COUNTY—R. T. Belcher's Mrs. G. Moody 1, Solomon Seal sur. still lcn. J. R. Brinkley Jr. Oil Co.'s W. F. Trammell 2, Robt. H. Hunter sur. comp 7 BPH after acidizing w/4000 gals. td 2103 ft. E. R. Cosby's W. H. Cosby 1, Maxwell sur. cement gave way when plugs drilled—revemented and woc ,td 1847 ft. Adolph Dovre's M. W. Calliham 1-A, c. o. Will run tbg & rods & put on pump again. td 2235 ft. W. E. Houset et al's M. C. Driscoll 1, James Berry sur. SD 1544 ft. J. O. Mack's B. Withers 1, W. House sur, drk. J. G. McKenzie's J. M. Pierce 1, Solomon Seal temp abnd 2060 ft. McNeil Pet. Corp.'s Will Clark 1, J. R. Miller sur. Sp. Sherman Nelson's A. B. Etheridge 1, Thad Hunter sur. moved in lighter rig & wo in effort to comp. in chalk. td 2180 ft (?) Stapper Pet. Co.'s E. Martin 1, A. Floyd sur. drk.

DIMMITT COUNTY—Paul C. Teas & Maryland Oil Corp.'s S. E. McKnight 1, Sec 23, lcn. Wilcox Oil & Gas Co.'s Light Ranch 1, Sur 527 dr 5675 ft.

EDWARDS COUNTY — Dan Aul's Mrs. Mamie Rigsby 1, Sec 16 set 8 in. csg & WOC td 3040 ft.

FRIO COUNTY—Amerada Pet. Co.'s Mrs. D. D. Harrigan 1, Salvador Flores sur. dr 1100 in sd/tr hole at 1100 ft. td old hole 6290 ft.

GONZALES COUNTY—Conoe Creek Oil Co.'s W. L. Bolts 1, W. A. Matthews Sur. WOR.

GUADALUPE COUNTY—R. T. Belcher's J. T. Fulcher 1, Robt. Smith Sur. Set sur csg WOC. J. Kenneth Blackmar et al's Cora & J. E. Mackey 1, James Hodges sur. dr 2640 ft. J. E. Clark's Paul Knodel 1, Green Dewitt sur. dr 2200 ft. Louis Crouch et al's Mary E. King 1, J. D. Clements Sur. WOC td 2230 ft. Diamond Half Oil Co.'s E. Bibbs et al 1, Joel W. Robinson Sur. D & A td 5510 ft. Felmont Oil Corp.'s Lizzie Schueneman 1, Green Dewitt sur. dr 2132 ft. Kennedy & Crowley's Gus Jahns 1, Jose K. Davis sur. will acidize td 2507 ft (?) Dave T. Mulholland's T. W. Jahns 1, J. K. Davis sur. lcn. abnd. Riddle Oil Co.'s Ned Herff 1, Eligio Gortari sur. td corrected 2209 ft. set 5½ in. liner to td WOC. V. G. Schimmel et al's Mrs. Wilhelmina Schneider 1, Jesus Cantu sur. coring chalk 2037-57 ft. Saturation. td 2057 ft.

HAYS COUNTY—R. D. Kelly's W. P. Donalson et al 1, J. Vermandi Grant. temp abnd 890 ft.

REAL COUNTY—Sun Oil Co.'s Dietert & Oppenheimer 1, G. W. T. & P. RR sur. dr lime 5920 ft.

TRAVIS COUNTY—R. M. Kyle's W. D. Hunter 1, J. Burleson sur. sp.

WILSON COUNTY—Maryland Oil Corp. et al's Cynthia N. Tremmell 1, M. May sur. drk up.

ZAVALLA COUNTY—H. F. Wilcox's T. J. Gillam 1, G. W. T. & T. RY sur dr soft porous formation 3941-47 ft. made head mud, gas & oil bridged, tools stuck in csg. Pulled csg & clearing hole to reset csg to test T/Austin Ch. 3116 ft. oil 20 gravity 2700 ft. fluid in hole—mostly sul/wtr bridge at 2500 ft. td 3947 ft.

EAST TEXAS

ANDERSON COUNTY—Tom F. Hunter, Jack Frazier & American Liberty Oil Co.'s G. E. Gage 1 (160-ac), C. B. Gilbert sur, 2 mi se Blackfoot, elev 384 ft, Pecan chalk 2850-3004 ft, Austin chalk 3980-4376 ft, top Woodbine 4782 ft, top Red Beds 4989 ft, top Georgetown lime 5681 ft, top Paluxy 6758 ft, top Glen Rose 7029 ft, anhydrite stringer 8085-8120 ft, massive anhydrite 8415-8523 ft, trace gas on drill stem test 9050-9147 ft, no water, coring 9150 ft. Roeser-Pendleton Inc.'s V. W. Bowyer 3 (200-ac), E. Ritter sur, Cayuga field Trinity test, elev 317 ft, top Woodbine series 3991 ft, top Georgetown lime 4749 ft, dr 6180 ft. Tide Water Associated-Seaboard Oil Corp.'s Monnig Bros. 7 (3806.82-ac), S. Sanchez sur No. 1-11, Long Lake field Trinity test, elev 233 ft, Pecan chalk 3565-3766 ft, Austin chalk 4687-4957 ft, top Woodbine sand 5273 ft, top Georgetown lime 5904 ft, top Paluxy 7010 ft, top 1st Glen Rose 7205 ft, top 1st anhydrite 8333 ft, massive anhydrite 8643-8748 ft, dr lime 9610 ft.

BOWIE COUNTY—Ferguson & Hill's A. Y. Breckenridge 1 (412-ac), Nancy Dycus sur, 4 mi w Texarkana, top Annona chalk 1308 ft, top Blossom sand 2063 ft, sd 2610 ft. Sutton & Hawkins' N. M. McDuffey-Harris 1 (389.45-ac), John Ball sur, 3 mi se New Boston, elev 333 ft, top Annona chalk 1472 ft, top Georgetown lime 2847 ft, top Paluxy series 3350 ft, top anhydrite stringer 4495 ft, top massive anhydrite 4640 ft and base 4825 ft, pb fr 4924 ft to 4724 ft, milling 4767 ft. Mrs. S. O. Thompson & Jaffe's C. W. Rosemond 1 (425¼-ac), Jefferson Milam sur, 3 mi sw Red Water, sd for repairs 4592 ft.

CHEROKEE COUNTY—Stoco Oil Co.'s E. B. Parks 1 (17-2/3-ac), J. T. Cook sur, 4 mi sw Rusk, elev 417 ft, lost returns and sd 3210 ft.

COLLIN COUNTY—Foster Jones et al's Ann Sherley 1 (54.44-ac), Gwynn Morrison sur, ½ mi e of Anna, top Paluxy series 2123 ft, top 1st anhydrite 2725 ft, dr 2760 ft.

DALLAS COUNTY—Mauldin Oil Co.'s W. E. Howell 1 (107.7-ac), S. Layton sur, sp & sd.

DELTA COUNTY—F. J. Estes et al's W. S. McGee 1 (207-ac), J. G. Oliver sur, 2 mi sw Klondike, elev 449 ft, top Georgetown lime 3305 ft, sd 4001 ft.

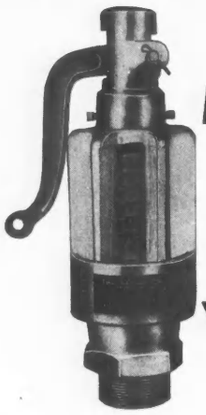
FALLS COUNTY—J. Edward Mills et al's Sam Grucholski 1 (40-ac), Dennis Herold League, 5 mi sw Kosse, elev 521 ft, top Edwards lime 3867 ft, top upper Glen Rose 4074 ft, cem 5-3/16-in cas 5374 ft, in lower Glen Rose, td 5526 ft.

FREESTONE COUNTY—C. F. Lytle et al's Roy Simmons 1 (28.83-ac), R. B. Longbotham sur, ¼ mi s Wortham, Trinity test for depleted field, sd 3820 ft. L. R. Stroud & C. A. Buzzard's Sneed 1, R. D. Sloan sur, 6 mi ne Fairfield, cavey hole 341 ft.

GRAYSON COUNTY—Olson Drl. Co., Jas. H. Gardner, Broswood Oil Co. et al's D. R. Utiger 1 (160-ac), P. P. Cady sur, 5 mi nw Denison, Preston anticline, elev 722 ft, sdo 6004 ft.

HENDERSON COUNTY — Humble, Tide Water Associated & Seaboard Oil Corp.'s McElreath-Suggett 1-C (149-ac), W. P. Wyche sur, 1½ mi nw Opelika, elev 394 ft, Pecan chalk 2580-2730 ft, Austin chalk 3710-4110 ft, top Woodbine series 4137 ft, top sand 4204 ft, top Georgetown 4950 ft, top Paluxy 6006 ft, top 1st Glen Rose 6270 ft, top anhydrite stringer 6930 ft, oil pay 7185-7195 ft, cemented stuck 4½-in drill pipe 7160 ft, sd for nitro shot to

INFERNO



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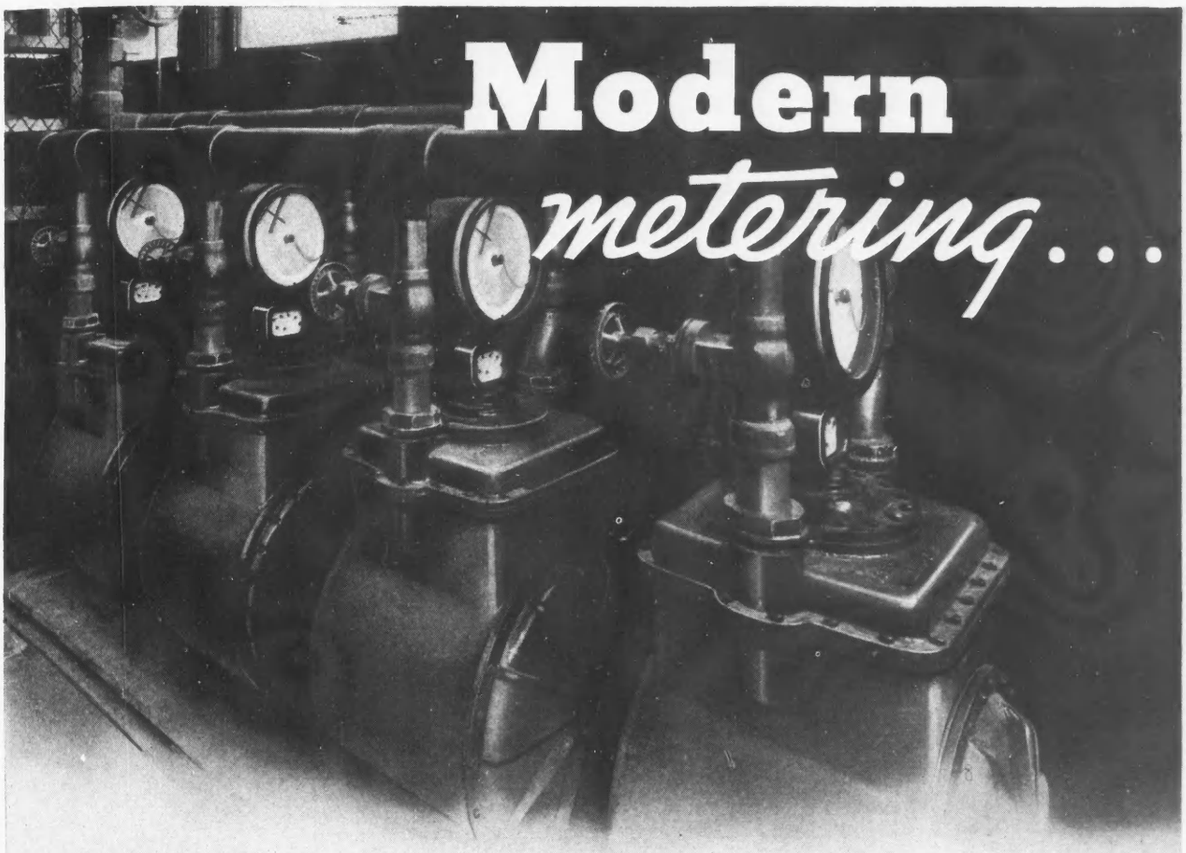


Modern *metering* . . .

BATTERY OF FOUR METRIC IRONCASE METERS installed at the Mueller Brass Company, on the lines of the Detroit Edison Company of Port Huron. The four Ironcase 60-B Type Meters here utilized have a capacity of 950 cu. ft. each per hour at ½" loss, and 2000 cu. ft. each at 2" loss of water.

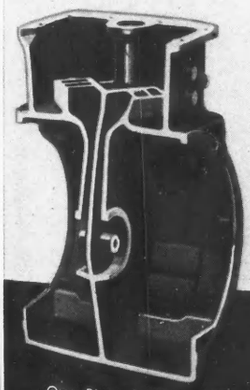
METERS SET UP in parallel, as here shown, offer important advantages in industrial gas measurement. An uninterrupted, complete chart record of the load is insured . . . permitting the proving of meters, one at a time, or even cutting out any meter from the line for overhauling. Each meter is equipped with a Westcott Volume and Pressure Gage, which charts hourly rate of gas flow and pressure.

Metric Ironcase Meters in sizes 5-B to 500-B, include types to meet both the usual and the unusual in service requirements . . . each type designed specifically for the work intended to be performed. The processed one-piece body construction not only brings additional strength, safety and corrosion resistance. It also eliminates internal leaks.

To achieve and **MAINTAIN** the high Metric standard of accuracy, the friction loss is held to a minimum . . . by valves of perfected design and precision movement . . . improved bearings, lubrication methods and stuffing boxes . . . specially developed diaphragm construction and operation. Metric Ironcase design utilizes the slide valve and full bellows principle . . . your assurance of reliable performance throughout the Metric line.

The operating advantages of Metric Ironcase Meters are detailed in Catalog EG-40 . . . mailed upon your request.

815



One-Piece Body Casting, Eliminating Internal Leaks

Established 1836

AMERICAN METER COMPANY

INCORPORATED

METRIC METAL WORKS *ERIE, PENNSYLVANIA*

remove rock bit; McElreath-Suggett 2, mim. Wm. McDougall Tr. et al's Trinity Farm Securities Co.-R. M. Manning 1 (200-ac), H&TC Ry. sur, 4 mi s Malakoff, lcn.

HOPKINS COUNTY—Carpenter Oil Corp.'s C. D. Gillis 1 (53¾-ac), W. A. Smith sur, 2¾ mi e Cumby, elev 593 ft, rur. H. & W. Dev. Co.-V. A. Hughes-S. A. Williams' Pan-American Life 1 (136½-ac), 6 mi se Brashear, dr 2000 ft. F. D. Jones et al's A. A. Basshan-Gulf 1 (207-ac), Wm. Cole sur, rur.

HOUSTON COUNTY — American Liberty Oil Co. et al's W. L. Moody 1 (55-ac), S. C. Parker sur, 2½ mi nw Grapeland, rur. E. R. Mount, Branch et al's Dr. P. S. Griffiths 1 (136-ac), Frank Johnson sur, 3 mi sw Crockett, sd 1740 ft. Placid Oil Co.-Shell Pet. Corp.'s J. E. Elliott 1 (200-ac), J. M. Procella sur, 6 mi ne Grapeland, elev 371 ft, Pecan chalk 4590-4955 ft, Austin chalk 5587-5869 ft, top Woodbine series 5870 ft, td 6634 ft, pb and perf cas 5868-70 ft, tested lots gas with distillate and some water. Ridgeway & F. B. Jackson Jr. et al's H. F. Moore 2 (53-ac), H. Masters sur, 2 mi se Crockett, elev 337 ft, dk. C. & G. Oil Co.-Duval Williams' E. M. Young 1 (34-ac), J. J. Thomas sur, near Lovelady, dr 2000 ft.

HUNT COUNTY—Penn Oil Corp., Elmer S. & Fox Wood's A. B. Parrish 1 (200-ac), Nancy Danley sur, 7 mi ne Lone Oak, elev 597 ft, Pecan chalk 1387-1477 ft, top Austin chalk 2676-2900 ft, top Georgetown 4369 ft, top Paluxy 5015 ft, top anhydrite 5930 ft, dry & abd 6503 ft. The Texola Land Corp.'s J. M. Goin 1 (250-ac), Jas. Merrick sur, 2 mi sw Wolfe City, sp & sd. Stanolind O. & G. Co. et al's Jessie P. Hawks 1 (110-ac), Robt. Ragsdale sur, 1½ mi w Campbell, Trinity test, elev 566 ft, top Pecan chalk 1150 ft, cut fault 1275 ft, top Woodbine 2880 ft, base Woodbine series 3600 ft, top Georgetown lime 3730 ft, dr 3950 ft.

KAUFMAN COUNTY—J. M. Scott & J. B. Woodside's Wood & Temple Nash 1 (80-ac), Juan Cortez sur, 1 mi e Scurry, elev 401 ft, Gober chalk 1300-1400 ft, sd 2510 ft.

LAMAR COUNTY—Cooper Bros. & Sallee's L. P. Hayes 1 (100-ac), Luke Roberts sur, 1 mi w Deport, elev 458 ft, chalk 85-340 ft, top Red Beds 1786 ft, top Paluxy series 2710 ft, top water sand 2730 ft, dr 2745 ft.

LIMESTONE COUNTY—Pure Oil Co.'s W. B. Kendrick 16-T (96-ac), 3 mi w Mexia, Mexia field Trinity test, elev 508 ft, Austin chalk 2210-2522 ft, top Woodbine 2896 ft, lost hole 2984 ft, pb to 2315 ft, re-dr 2920 ft. A. W. Phillips & J. Johnson's E. M. Wright 1 (136½-ac), A. Varella-M. Herrin sur, 4 mi ne Groesbeck, elev 415 ft, Pecan chalk 2450-2520 ft, Austin chalk 2720-3003 ft, sd 3695 ft.

RED RIVER COUNTY — Carpenter Oil Corp.'s R. E. Anderson 1 (100-ac), S. W. Sims sur, 3 mi n Clarksville, elev 459 ft, top Red Beds 1250 ft, top Paluxy series 1845 ft, top anhydrite 2565 ft, top Glen Rose 2765 ft, sd 3019 ft to deepen.

RUSK COUNTY—John G. Mayo et al's Harrison-S. C. Sanford 1 (161-ac), Wm. A. Corder sur, 10 mi e Mount Enterprise, Trinity test, elev 252 ft. lcn. John W. Merritt et al's J. M. Tipps 1, Thomas Uzzell sur, 5 mi n New Salem, cem 10-in cas 110 ft.

UPSHUR COUNTY — Frank Linbart & Kightlinger's F. W. Fair 1 (100-ac), H. W. Augustine sur, 4 mi se Big Sandy, sp & sd.

VAN ZANDT COUNTY—Humble O. & R. Co.'s L. K. Riggs 1 (74.2-ac), Wm. Daniel sur, ne edge Van field, elev 457 ft. Pecan chalk 1925-2040 ft. Austin chalk 2785-3022 ft, top Woodbine 3230 ft, top Georgetown lime 3725 ft. top Paluxy series 4645 ft. tested sw, td 4664 ft, crooked hole, pb to 3946 ft, jkd. skid 100 ft south for new Trinity test. Spratt Oil Co. (was Stroud & E. N. Lowe), P. L. McNeill 1 (104-ac), J. W. Guest sur, 4 mi n Ben Wheeler, elev 510 ft, sd 684 ft.

EAST TEXAS BORDER COUNTIES

CASS COUNTY—McAlester Fuel Co.'s J. J. Dooley 1, Calloway Davis sur, elev 246 ft, Georgetown lime 3690 to 4401 ft, top Paluxy 4530 ft, dr 5445 ft red shale and sand. Magnolia's Harper & Thatcher 1, Jacob Carsner sur, pb & set csg woc, old td 6675 ft. United's J. W. Land 1, Robt. Potter sur, dr 7165 ft.

MARION COUNTY—Ark.-La. Gas Co.'s C. C. Braden 1, Thos. Hanson sur, dr 4715 ft. Laura McIntosh 1, Wm. Edmonson sur, elev 272 ft, claim so & sg 6654-65 ft, dr 6846 ft red sand & shale. The Hunter Co.'s E. W. Fonda 1, A. de Los Santos Coy sur, slight so in core 5990-6009 ft, 7-in csg 6082 ft, arr test td 6096 ft.

PANOLA COUNTY—Danciger O. & R. Co.'s Alfred Bissell sur, spd & sd. R. B. Dearing et al's Wooten Est. 1, Winny Mann sur, spd set surf csg. Glassell & Glassell's Pierce & Chesbro 1, Julia Soaps sur, rur. Magnolia Pet. Co.'s E. A. Hull 2, sg & show distillate 5885-5900 ft. coring 5935 ft. Thos. Applewhite sur, elev 222 ft. Socogee Oil Co's Trosper 1, Larkin South sur, 10-in csg 45 ft, dr 1990 ft.

SHELBY COUNTY—Wm. Redditt et al's Pickering Lbr. Co. 1, Stephen English sur, arr deepen 2165 ft. H. A. Stebbinger et al's Pickering Lbr. Co. 2, A. Hanson sur. cemtd 5-3/16-in csg at 5072 ft, testing td 5099 ft. Shelby Oil Co.'s Windham 2, A. H. English sur, ru & sd (450 ft s of No. 1).

ARKANSAS

ASHLEY COUNTY—Toe Modisett & Phillips Pet. Co.'s Stillions Lbr. Co. 1, s½ sw nw 18-17-9w, lcn under water, rog.

CLARK COUNTY—McLarry et al's Bierne Lbr. Co. 1, ne se ne 22-10s-21w, spd. set surf csg 103 ft. M. W. Martin's C. L. Cabe 1, nw nw 14-10-20, install new rig, td 1002 ft, shale. Carter & Burdick's Ozan Lbr. Co. 1, ne ne nw 25-9-19, rur.

CLEVELAND COUNTY—J. R. Lockhart's Ida Robertson 1, 36-10-11, cored sandy lime and shell so 3531-36 ft, tested 4 joints mud in 10-min drill stem test 3503-31 ft, sd 3531 ft.

HEMPSTEAD COUNTY — E. H. Moore Inc.'s Porterfield 1, ne se 21-14-25, spd. Davidson & Todd's Smith 1, sw se 1-11-25, sd for water 1460 ft.

LAFAYETTE COUNTY—King Drlg. Co.'s Walcott 1, c ne sw 36-19-26, dry aban, td 6218 ft. A. M. Neely's Meek 1, ne nw 35-19-25, fsh 3610 ft.

LITTLE RIVER COUNTY—J. G. Strahan's Dierks Lbr. Co. 1, 21-12-28, top red beds 1130 ft, top anhydrite 1804 ft, sdtr drill pipe 2330 ft.

LONOKE COUNTY—F. F. Silver's Chambers 2, sw ne nw 17-2n-7w, spd.

MILLER COUNTY—W. L. McClanahan et al's (was Kimbrough et al) Capps 1, ne sw 11-20-28, elev 284 ft, dr 3728 ft. E. H. Moore's Dale 1, se nw 24-15-26, top Nacatosh 1112 ft, chalk 1505-1895 ft, top red beds 2608 ft, cored green shale so 2838-2842 ft, tested 2 thribbles sw in 30 minutes, cored lime salty taste 4227-40 ft, coring 4276 ft; Dale 2, se nw 24-15-26, top Nacatosh 1125 ft, chalk 1520-1905 ft, dr 3925 ft. Nivla Oil Corp.'s Merchants & Planters Bank 1, se se 18-15-26, arr abn 4420 ft, top Gloyd 4185 ft.

NEVADA COUNTY—CBF Pet. Co.'s Wm. Haynie 2, se ne 5-14-20, spd woc 10-in csg 60 ft. Benedum & Trees Oil Co.'s Grove 1, 10-14-20, owdd, dr 3410 ft shale. W. S. King's Wren 1, sw ne 6-13-22, sd 3120 ft. S. F. Sheppard's Purifoy 1, 10-in csg 64 ft. Bruce Wallace's Wm. Haynie 3, se nw 6-14-20, mim. Walter Lown's Grayson 1, sw se 12-14-20, sd 2410 ft.

OUACHITA COUNTY—H. H. Taylor's Joe McCree 1, nw sw nw 21-13-19, 10-in csg 103 ft, dr 600 ft. Copenhaver et al's Evans 1, 20-11-19, rur.

PULASKI COUNTY—A. L. Kitselman's Fee 2, se se sw 21s-13w, 4-in csg 365 ft, sd 893 ft, rocks.

UNION COUNTY—Alice Sidney Oil Co.'s Morgan 1, ne se 18-18-17, woc 10¾-in csg 1600 ft. H. C. Detrick's S. L. Robbins 1, sw sw ne 16-in csg 30 ft. Lion O. R. Co.'s Edna Morgan B-1, sw nw se 18-18-17, elev 249 ft, so 3103-32 ft, failed in 2 attempts at drill stem test, hole caved, coring 3550 ft. Marine Oil Co.'s M. Justiss 1, swc lot 7, nw 18-18-17, dr 4567 ft. W. D. Wingfield's Southern Kraft Corp. 1, sw ne 18-16-14, 12½-in csg 501 ft, dr 1286 ft.

NORTH LOUISIANA

BIENVILLE PARISH—DeSoto O. & G. Co.'s Wm. Ashley 1, sw se 15-16n-10w, woc surf csg. Lide, Greer et al's W. J. Smelley 1, se nw sw 18-16n-4w, 10-in csg 2634 ft, tested est 20 mil ft gas 6068 ft, dr 6400 ft, hd lime & shale. McDowell et al's Locke 1, 9-15n-10w, sd 2789 ft.

BOSSIER PARISH—United Gas' Skannal I-2, 25-17n-12w, spd; S. L. Herold 1, 31-17n-11w, dk; Jeter Unit A-1, 24-17n-12w, dr 865 ft; Schnitt 3, 14-17n-12w, lcn; Producers O. & G. Co.'s Johnson 1, 5-17n-11w, rur; Hill Est. 1, 5-17n-11w, rur. Triangle Drlg. Co.'s Carrie Howell 1, 26-17n-12w, lcn. Ray Overlees et al's Biedenharn 1, nw ne 23-21n-14w, 16-in csg 300 ft.

CADDO PARISH—W. J. Hunter's N. B. Stoer 1, sw ne 10-15n-15w, elev 257 ft top Blossom 2149 ft, top Paluxy 2940 ft, top first anhydrite 4027 ft, massive anhydrite 4442-4992 ft, arr make test td 5500 ft, Glen Rose lime. R. W. Norton's Payne 1, se se 27-23n-16w, cemtd 7-in csg 9454 ft, dr 9627 ft. Prairie River Synd.'s Hutchinson 1, 15-15n-12w, dr 7796 ft.

CLAIBORNE PARISH—Gulf's Henry 1, nw ne 31-21n-4w, mim. J. R. Bevill et al's Edmonds 1, ne ne 16-20n-5w, 10-in csg 625 ft, dr 1400 ft. Magnolia Pet. Co.'s Burgess 1, 8-20n-4w, mim. Atlantic O. P. Co.'s F. B. King 1, sw se 35-21n-5w, rur. United et al's Dobbins 1, 12-19n-5w, flowing wo on gauge, td 5776 ft. Carter Unit 1, 32-20n-5w, owdd, dr 4485 ft. Standard of La.'s R. D. Baker 1, nw nw 27-19n-7w, running electrical tester preparatory to abandoning, td 7247 ft.

DESOTO PARISH—Benedum & Trees Oil Co.'s Clifton 1, ne nw 33-13n-12w, elev 1992 ft. top massive anhydrite 4096 ft, dr 5666 ft, hd lime. Chamberlin et al's Lanier 1, sw ne 29-11n-11w, rur. Stevens et al's Leslie Golden 1, se sw 2-11n-16w, lcn.

FRANKLIN PARISH—Jensen et al's Grayson 1, c ne 36-12n-6e, woc surf csg 103 ft.

GRANT PARISH—Fair & Thompson's R. L. Gay 1, irregular sec 46-6n-3w, rur. Horace M. Smith Corp.'s & McConnell & Co.'s Ivy McNeely 1, swc 21-6n-3w, sd 30 ft, cur titles. H. Weir's Quin 1, 10-7n-3w, spd & completing rur.

LINCOLN PARISH—J. D. Carruthers et al's Aycock 1, sw sw 6-20n-4w (Lisbon), mim. Glassell & Glassell's A. P. Gray 1, se sw 16-20n-3w, dr 2890 ft. Lyons & Neely's Bennett 1, c n½ nw nw 6-20n-4w, dr 3630 ft. Oakes, Easton & Evans' R. L. Sanderson 1, nw nw 30-18n-1w, dk.

NATCHITOCHES PARISH—Jack Lent et al's Locke 1, 26-9n-9w, 12-in csg 156 ft. Roy Raines et al's Allen Plantation 1, nw ne sw 22-9n-10w, 12½-in csg 70 ft, woc td 280 ft.

RAPIDES PARISH—C. L. Decker's Lee Lbr. Co. 1, se ne 22-5n-3e, dk. F. W. Martin & Co.'s Hill 1, nw sw nw 24-5n-4w, mim. R. D. Webb's Brasher 1, 22-4n-2w, fsh 5255 ft.

SABINE PARISH — Kirk-Greenway Inc.'s (Deep Rock Oil Co.), Whitney Corp. 1, nw nw

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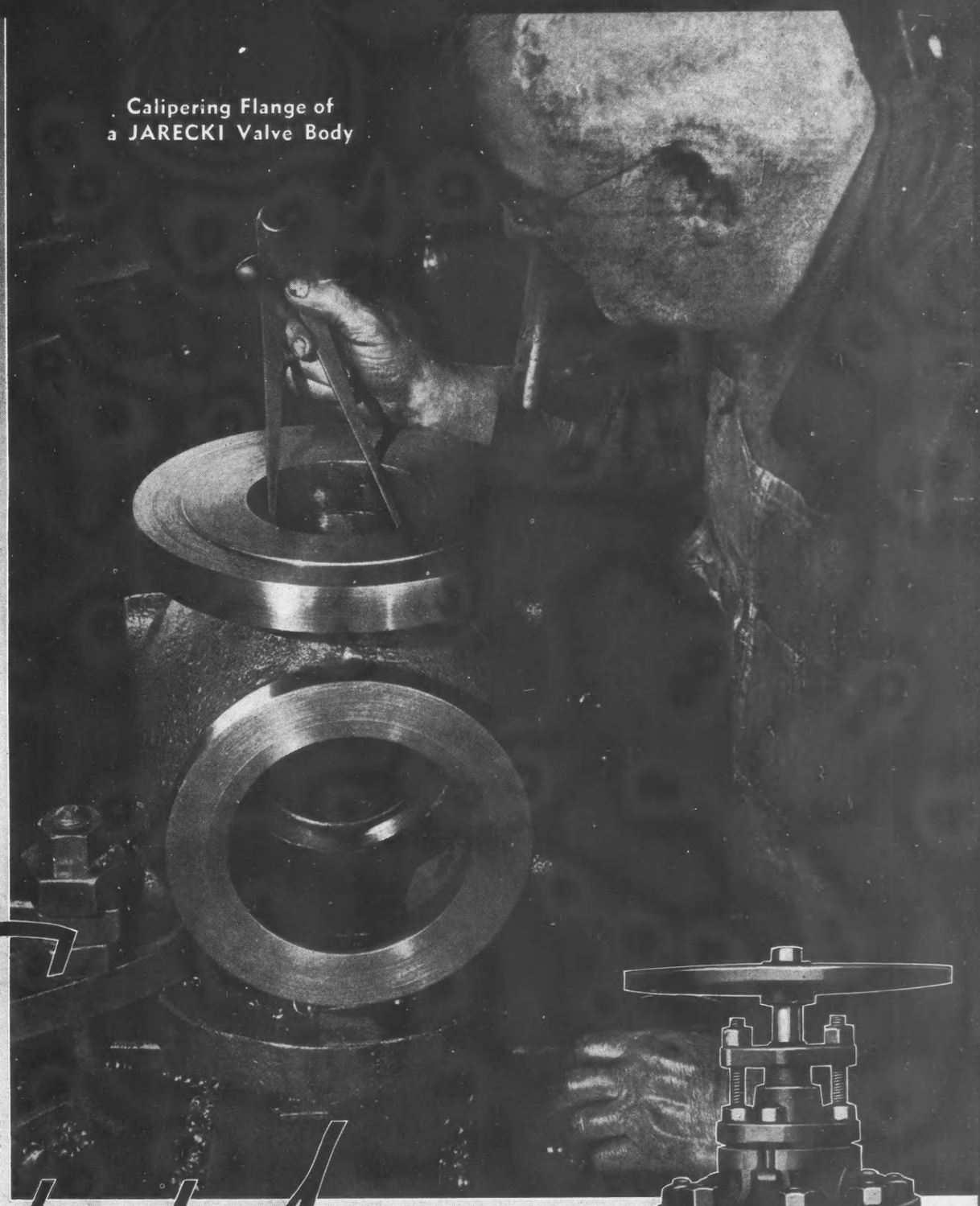

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Fig. 1007—1000-Lb. Test
500-Lb. O.W.G. Working Pressure

8-9n-13w, elev 290 ft, 9⅝-in csg cemtd 5251 ft (corrected depth) dr 5310 ft. A. C. Scott et al's Bowman-Hicks 1, 23-9n-13w, claim so in 4 ft sand 3085-88 ft, ran electrical tester, cemtd 7-in csg 3065 ft, woc td 3088 ft.

TENSAS PARISH—H. M. Jones' Chicago Mill & Lbr. Co. 1, nw sw nw 20-12n-10e, 8⅛-in csg 776 ft, hole cleaned after gas blowout, sd 787 ft.

WEBSTER PARISH—Bass Drlg. Co.'s Tom Crichton 1, nw nw 21-20n-9w, dr 5320 ft shale. N. V. Duncan et al's Mayfield 1, se nw 9-23n-9w, spd woc surf csg. Magnolia Pet. Co.'s A. J. McCook 1, sw sw 22-21n-10w, lcn; George Cole 2, nw nw 27-21n-10w, rur; D. G. Cox 2, se ne 22-21n-10w, 7-in csg 5670 ft, woc td 5690 ft; Ira Cox 6, 23-21n-10w, rur. Ohio Oil Co.'s R. M. Coyle 2, se se 22-21n-10w, elev 215 ft, dr 7179 ft; S. P. D. Coyle 1, se sw 23-21n-10w, elev 231 ft, dr 7449 ft; Coyle-Cox 1, sw se 21-21n-10w, coring 8176 ft sand; A. J. Hodges 2, nw sw 23-21n-10w, dr 7821 ft; R. L. Holloway B-7, sw ne 23-21n-10w, mim; T. Crichton 1, ne 21-21n-10w, mim; Mrs. L. M. Gardner 1, ne ne dr 5576 ft; T. Crichton-Coyle 1, ne se 21-21-10w, lcn. United Gas' Tillman Hrs. 1, c nw 27-21n-10w, lcn; Tillman Hrs. 2, ne ne 28-21n-10w, lcn; Tillman Hrs. 3, nw ne 28-21n-10w, lcn. Standard of La.'s E. L. Stewart 1, se se 32-21n-10w, dr 4715 ft shale & anhydrite. Woodley Pet. Co.'s Gray B-4, c ne ne 27-21n-10w, elev 232 ft, dr 7936 ft.

SOUTH LOUISIANA

ACADIA PARISH—Humble's Federal Land Bank 1, North Crowley prospect, 34-8s-1e, dr shale 6050 ft.

CALCASIEU PARISH—D. & D. Oil Co.'s Lutcher Moore 1, nw of Starks, 1-8s-13w, td 8557 ft, trying to get back in old hole at 2700 ft.

CAMERON PARISH—Humble's Bell-Hanszen 1, Hanszen prospect, 5-12s-6w, ru. Superior & Pure's State Gulf of Mexico 1, in Gulf of Mexico, 4-15s-8w, lcn. Union Sulphur's Hebert 1, Big Lake area, 18-12s-8w, running electrical logging device at 8326 ft.

EAST BATON ROUGE PARISH—Cavalier Oil Co.'s Elliott 1, n of Hope Villa, 3-8s-2e, ru; Young 1, Port Hudson area, 52-4s-1w, abn 5000 ft.

EVANGELINE PARISH — Continental & Humble's Pardee Lbr. Co. 1, Reddall area, 18-4s-1w, abn 8875 ft.

IBERIA PARISH—Jefferson Lake Oil Co.'s Lake Peigneur 414, Jefferson Island dome, 12s-5e, woc 5300 ft.

JEFFERSON DAVIS PARISH—Louisiana Crusaders Oil Co.'s I. Langley 1, Fenton area, 36-7s-5w, dr in sdtr hole at 6972 ft. Stanolind's Calcasieu National Bank 2-B, China prospect, 28-7s-3w, fsh 4201 ft; Calcasieu National Bank 2, South Jennings area, 10-10s-3w, dr shale 4255 ft.

LAFOURCHE PARISH — Fohs Oil Co.'s State Long Lake 1, Bourg prospect, 65-17s-19e, setting 9⅝-in csg 8362 ft. Gulf's State 3, sw of Marchland, 36-23s-21e, canal comp.

PLAQUEMINES PARISH—Gulf's State Bay Adams PP, in Bay Adams, 32-19s-28e, dr shale 4374 ft. Tide Water's Manhatten Fruit 3, Venice dome, no report.

ST. BERNARD PARISH—Gulf's Lake Lery 2, Lake Lery prospect, 28-14s-14e, reaming 6126 ft.

ST. CHARLES PARISH—Amerada & Louisiana Land's State Bayou Des Allemands 1, Black Prince Island prospect, 13-15s-20e, dr shale 2809 ft.

ST. LANDRY PARISH—Gulf's Haas-Hirsch 1, Krotz Springs area, 12-6s-7e, dk. Shell's Boagni 1, ne of Cankton field, 48-8s-4e, dr sandy lime 8097 ft.

ST. MARTIN PARISH—Joe E. Lilly et al's R. Martin 1, Section 28 prospect, 32-10s-7e, repairing dk 796 ft. Texas Co.'s State Mongouloi 3, Lake Mongouloi prospect, 14-10s-9e, running an electrical logging device 8000 ft; St. Martin Land Co. 9, Henderson area, 21-8s-7e, showed salt water on drill stem test, shut down waiting on orders at 8858 ft.

ST. MARY PARISH—Texas Co.'s State Bateman Bay 1, Morgan City prospect, 21-16s-12e, leveling barge at 8953 ft; State Horseshoe Bayou 1, on Horseshoe Bayou, 40-17s-9e, dr shale around 12,000 ft.

TERREBONNE PARISH—Humble's Elender 1, Houma Gas field, Section 23-19s-19e, testing 11,630 ft.

CALIFORNIA

FRESNO COUNTY

CANTUA CREEK—Western Gulf's S. P. L. 3, 36-21-15, td 8531 ft, plug 6950 ft, sanded up, last prod 460 bbls of oil and 330 bbls of water, recemented through perforations 6330 to 6340 ft, to be again tested.

KERN COUNTY

LERDO—Arkelo Pet. Co.'s No. 41, 23-28-26, td 10,056 ft, fsh dr pipe.

PREMIER—Bajaki Oil Co.'s Bowen 1, 28-27-27, sd 1959 ft.

GRAPEVINE—Buffalo Oil Co.'s Tejon 1, 5-10-19, sd 4452 ft. Ohio Oil Co.'s Title Ins. D1, 21-11-19, dr hard shale 8255 ft; K. C. L. E2, 6-30-26, spud May 5, dr. Reserve Oil & Gas Co.'s No. 2-6, 2-10-19, dr shale 2360 ft; Ritchie 33-1, 33-11-19, td 6030 ft, plug 4990 ft, sd; Tejon 33-2, td 4505 ft, redr to 4476 ft, sd; Tejon 33-3, td 4431 ft, flowing 4,500,000 cu ft gas; Tejon 33-4, spud April 30, dr shale 960 ft.

BENA—Cajalco Pet. Co.'s Brown-Pallette 1, 9-30-30, spud April 30, dr.

KERN FRONT—C. C. M. Oil Co.'s Carter 1, 35-27-27, rig. Seskayden Oil Co.'s No. 3A, 17-28-27, td 2890 ft, bailing.

WASCO—Continental Oil Co.'s K. C. L. A-1, 8-27-24, sd 9591 ft. Seaboard Oil Corp.'s K. C. L. C-1, 26-27-24, dr shale 8211 ft.

ROSEDALE—Continental Oil Co.'s K. C. L. B1, 12-29-26, dr hard sandy shale 7624 ft.

DEVIL'S DEN—Den Pet. Co.'s Bates 1, 20-25-19, dr siltstone 4145 ft. Geo. Goodrum's Baron 1, 24-25-18, dr shale 320 ft. Lube Oil Co.'s No. 1, 2-25-18, sd 4280 ft.

JASMINE—Doyle Pet. Corp.'s Quinn 1, 15-25-27, td 2956 ft, plug 2882 ft, sd; No. 2, td 2922 ft, ran formation tester, recovered some oil, sd.

EDISON—East Edison Oil Co.'s No. 1, 23-30-30, td 1172 ft, r.

ELK HILLS—Elk Hills Pet. Co.'s No. 1, 14-31-28, sd 7580 ft.

NORTH KERN RIVER—Hub Oil Co.'s No. 1, 8-28-28, dr shale 2816 ft.

RIO BRAVO—Mohawk Pet. Co.'s K. C. L. 1, 23-29-25, td 8443 ft in gray sand, abn. Union's Kernco 1-34, 34-28-25, dr shale 7330 ft.

STRAND—Ohio Oil Co.'s Title Ins. E2, 6-30-26, spud May 5, dr.

ROUND MOUNTAIN—Pageman & Hennes' Pagehen 1, 10-28-29, dr gray sand 1191 ft.

WEST MOUNTAIN VIEW—Sunset Oil Co.'s Sunset-Starr 1, 17-30-28, dr shale 4350 ft, showings in ditch.

McGUNDEN—Superior Oil Co. & A. T. Jergins' Crome Comm. 1, 36-29-28, td 5235 ft, did not aban, plug 3178 ft, to co and test at 3160 ft.

TEN SECTION—Superior Oil Co. & Union's K. C. L. 8, 11-30-26, dr shale 11,750 ft. Shell's Canal 21-14, 14-30-25, dr shale 7398 ft.

SOUTH MARICOPA—Trans-Line Pet. Corp.'s No. 1, 3-10-23, sd 662 ft.

SAN EMIDIO—Union's No. C3, 33-11-22, dr shale 1790 ft.

RIO BRAVO—Union's Kernco 1-34, 34-28-25, dr shale 7330 ft.

MIDWAY SUNSET—Valley Oil Co.'s No. 1, 18-32-23, sd 2815 ft.

BAKERSFIELD—Wilshire Oil Co.'s F. & P. 1, 36-29-27, rig.

HUMBOLDT COUNTY—Bushnell Oil Corp.'s Daisy Cook 1, 28-1-2, lcn. Texas Co.'s Eureka 1, 22-3-1, dr shale 7696 ft.

KINGS COUNTY—Birch-Royer Oil Co.'s Orr 1, 5-23-17, rur. Central Calif. Utilities' Kettleman-Lakeview 3, 11-23-19, td 1207 ft, plug 1190 ft, sd. Dudley Ridge Dev. Co.'s No. 2, 24-23-20, spud May 2, dr. Kettleman View Oil & Gas Co.'s No. 1, 9-22-19, td 4787 ft, woc 6⅝-in at 3400 ft. T. G. Norell's Guess 1, 7-21-21, sd 6172 ft. Glen C. Stone's Teeter 1, 25-20-20, td 1040 ft, st 8⅝-in at 790 ft, testing water shut-off. Tri-Counties Oil Co.'s Olson 1, 10-23-22, sd 3977 ft.

SAN BENITO COUNTY—Tide Water Associated's Murphy Ranch 1, 5-12-4, td 6921 ft, no core recovery, lost bit, plug 6725 ft, perforated 6640 to 6710 ft, swabbed water, trace oil, to cut and pull 6⅝-in pipe landed at 6800 ft.

SAN JOAQUIN COUNTY—Standard's McDonald Farms 3, 24-2-4, td 5339 ft, plug 5299 ft, 6⅝-in cemented at 5252 ft, ran 100 ft of 4¾-in including 30 ft of perforated, landed at 5289 ft, flowed at intervals, shut in.

SOLANO COUNTY—Amerada Pet. Corp.'s Drouin 2, 25-4-2, td 4463 ft, shut in; Emigh 2, 26-4-2, td 4505 ft, shut in; Marks 1, 24-4-2, dr 4197 ft.

SUTTER COUNTY—Buttes Oilfields' No. 4, 2-15-1, td 5800 ft, fsh dr pipe.

TULARE COUNTY—E. P. Jennings' No. 1, 4-24-23, td 2707 ft, plug 2300 ft; No. 2, 33-23-23, rig. Trico Oil & Gas Co.'s Valley 1, 36-21-25, rig.

MONTERREY COUNTY—Amil A. Anderson's No. 1 (Cholame), 15-24-14, dr conglomerate 790 ft. Shell's Branch 2, 34-24-10, dr shale 8430 ft.

SAN LUIS OBISPO COUNTY—Aviation Oil Co.'s Britnall 1, 10-11-35, td 1930 ft, to re-dr to 1200 ft, sd. Barnsdall's K. C. L. A-1, 1-32-20, dr shale 5220 ft. I. L. Burch's No. 1, 3-10-26, sd 3200 ft. Burkholder Oil Corp.'s No. 1, 14-10-26, td 3252 ft, sd, waiting for dr pipe. Gretna Corp.'s Miano 1, 25-30-10, dr shale 960 ft. Pismo Pet. Co.'s No. 1, 5-23-13, td 4425 ft, fsh for dr pipe. Temblor Oil Co.'s No. 1, 22-31-21, dr sand 1020 ft.

SANTA BARBARA COUNTY—E. C. Arnold's Arnold-Apache 1, 8-8-33, spud April 23, dr 801 ft. Cohn & Mitchell's Giacomiani 1, 18-30-34, rur. Hancock Oil Co.'s Los Alamos 2, 6-7-32, grading lcn. Leora Oil Co.'s Fithian 1, 8-4-25, td 1025 ft, co. Murdock & Allen's No. 1, 16-7-30, material on lcn. Nine Springs Oil Co.'s Brinkinhoff 1, 9-7-30, td 3300 ft, fsh. Oatman Rainbow Gold Mining Company's Midwestern L-1, 28-4-27, spud May 3, cemented 13⅜-in at 150 ft. S. E. D. Oil Co.'s No. 1, 27-10-34, rig. Tide Water Associated's Leonis 1, 3-6-33, grading roads. Todos Santos Oil Co.'s No. 1, 29-9-34, sd 2365 ft. Union's Russell 1, 21-10-34, spud May 6, dr. Valley Oil Co.'s Chief 1, 20-9-34, dr shale 2075 ft, cemented 8⅝-in at 1350 ft.

SANTA CRUZ COUNTY—Elba Oil Co.'s Elba 1, 6-12-1, lcn.

VENTURA—Continental Oil Co.'s Casitas 1, 7-3-23, dr hard shale 6874 ft. El Rancho Oil Co.'s Elkins 1, 9-3-19, td 5107 ft, plug 4950 ft.

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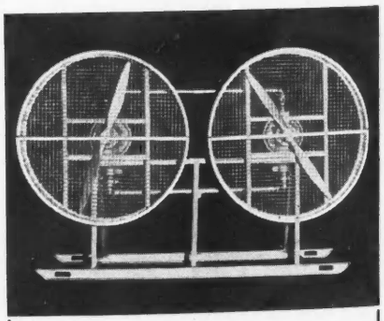

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SOUTHERN CALIFORNIA

NEWHALL—Barnsdall's Rancho San Francisco 1, 26-4-17, td 6472 ft, taken off production, recovered liner, and to shoot productive zone; No. 2, lcn. Holbrook Pet. Co.'s Newhall Land 1, 28-4-16, dr hard brown shale, streaks sand 5220 ft.

PICO CANYON—A. G. Burt's No. 1, 36-4-17, dr shale 1090 ft.

LYNWOOD—Calizoo Oil Co.'s Saulque 1, 9-3-13, dr sand and shale 4325 ft.

ARTESIA—Caltana Corp.'s Caltana 1, 11-4-12, sandy shale showing o & g in ditch, 6234 ft, to be abn.

NORTH LONG BEACH—Geo. L. Clayton's No. 1, 32-3-12, dr sand and shale 4780 ft.

FOX HILLS—Country Club Oil Co.'s No. 1, 19-2-4, dr sand and shale 3020 ft.

DAVIDSON CITY—Hilldon Oil Co.'s Flood Control 1, 11-4-13, td 6105 ft, to test on pump.

WEST COYOTE—Hogan Pet. Co.'s McNally 1, 23-3-11, dr sand and shale 5260 ft.

WALNUT—Julian & Criswell's Langstaff 1, 5-2-9, td 1805 ft, co.

HERMOSA—C. M. Henderson's No. 1, td 2804 ft, wocs 8⅝-in 2800 ft. Leora Oil Co.'s No. 1, 31-3-14, td 5465 ft, bailing.

PALOS VERDES—McClaren Bros.' No. 1, 27-4-14, td 3970 ft, redr at 1820 ft.

ROSECRANS—Shell's McKinley 4-1, 20-3-13, sd 7744 ft.

ORANGE COUNTY—Mesa Oil Co.'s Mesa 1, 29-6-10, dr brownish gray shale, showing oil, 7410 ft. Shell's Mathis 1 (Anaheim), 23-4-10, abn 5944 ft. Thomas & Moulton's Kraemer 1, 21-3-9, dr sand and shale 350 ft. West American Oil Co.'s Irvine 1 (Tustin), 14-5-9, spudded May 1, dr.

OKLAHOMA

ALFALFA COUNTY—Olson Drlg. Co. et al's Acre 1, csw ne 14-24n-11w, fsg swb & pb.

BECKHAM COUNTY — Mid-American Oil Co.'s Biscoe 1-A, sw sw sw 28-8n-22w, fsg 1930 ft. Carter Oil Co.'s Porter 1, csw sw 36-10n-25w, dr 1820 ft. Carter's Bingham 1, ne ne ne 31-8n-26w, dr 983 ft.

CLEVELAND COUNTY—Hollenback's Stinson 1, nw nw ne 17-9n-2w, dr 5772 ft.

COMANCHE COUNTY — C. V. Morris' Young 1, se ne se 24-3n-10w, dr 1000 ft.

CREEK COUNTY—Mosier et al's Holcomb 1, se sw ne 19-18n-8e, dr on bailer 2935 ft.

GARFIELD COUNTY—Arab Oil Co.'s Harkendorf 1, ne ne ne 34-20n-3w, td 6074 ft, D & A. Ohio Oil Co.'s State 1, sw sw sw 13-23n-2w, cor 4631-37 ft; odor O & G; to cor.

GREER COUNTY — Nelf-Godfrey-Andrea's Melton 1, cse nw se 16-3n-22w, dr 2775 ft.

HASKELL COUNTY—Continental Oil Co.'s Anderson 1, sw se ne 33-8n-20e, dr 1650 ft.

HUGHES COUNTY—Cap Rock Oil Co.'s Parks 1, csw se 34-7n-8e, sd 3152 ft. Chas. Thornton's Eason 1, ne ne nw 7-9n-11e, rig. E. H. Moore's Buck 1, nw sw sw 21-8n-10e, rig; mit.

JEFFERSON COUNTY—Gulf Oil Corp.'s Woodworth 1, cnw nw ne 20-3s-4w, sdo 3117 ft. Olson, Heenan & Coe's Rose 1, csw sw 1-5s-5w, dr 3426 ft. Massad & Swansberger's Barrett 1, ne se se 14-6s-6w, sd 1842 ft. A. T. Campbell et al's Trout 2, cw½ w½ ne 6-8s-7w, dr 1556 ft.

KAY COUNTY—Higdon et al's Nieman 1, ne nw ne 9-26n-3e, sd 317 ft.

KIOWA COUNTY—Kiowa Oil Corp.'s Finder 1, csw ne 4-6n-20w, sd 130 ft. Argus Pet. Co.'s Osbourne 1, nw nw ne 9-7n-16w, set 5 3/16-in csg 1233 ft, woc.

LATIMER COUNTY—Clark Drlg. Co. et al's Wilson 1, cse se 15-5n-18e, td 4572 ft, sd.

LeFLORE COUNTY—McGraw et al's Tidwell 1, cnw 17-3n-22e, td 3250 ft, fsg bit.

LINCOLN COUNTY — Mid-Continent Pet. Corp.'s Logan 1-A, ne ne se 31-11n-5e, swabbing.

LOGAN COUNTY—Anthony & Marshall's Fruin-Eckman 1, se se sw 4-16n-1e, acidizing. Helmerich & Payne et al's Randall 1, sw sw ne 24-16n-1w, dr 3352 ft. Eason Oil Co.'s Sisters 1, sw sw sw 24-17n-1w, dr 5121 ft.

LOVE COUNTY—Sinclair Prairie's Stockton 1, se se sw 26-6s-2w, rur to fish.

MARSHALL COUNTY—Stewart & Taylor's Chestnut 1, ne ne ne 23-8s-5e, plg off water.

MURRAY COUNTY—Russell's Fee 1, se nw se 9-2s-3e, dr 1880 ft. Power Oil Co. et al's Lancaster Trust Co. 1, csw ne 10-1s-2e, pb 3175 ft, sd. O. O. Owens' Fryer 1, ne se ne 34-1s-3e, dr 980 ft.

NOBLE COUNTY—Lincoln Oil Co. et al's Neil 1-A, ne ne ne 15-23n-2w, dr 4581 ft. Summitt Drlg. Co. et al's Dolezal 1, se se sw 8-22n-1w, dr 3130 ft. Magnolia Pet. Co.'s Forsythe 1, se se sw 23-21n-2w, dr 3287 ft.

OKFUSKEE COUNTY—Mid-Continent Pet. Corp.'s Gofford 1, ne ne nw 35-12n-7e, td 4638 ft, D & A. Oklahoma Oil Corp.'s Campbell 1, se se ne 8-10n-9e, td 1755 ft, to cor.

OKLAHOMA COUNTY—Sunray Oil Co.'s Dickson 1, nw nw nw 17-11n-1e, rig & wtr well.

OSAGE COUNTY—Helmerich & Payne's No. 1, ne ne se 13-23n-6e, dr 1254 ft. Mid-Co Oil Corp.'s No. 1, se se sw 22-23n-6e, ru mach.

PAYNE COUNTY—H. F. Young's Jenkins 1, se ne se 4-17n-3e, dr 4595 ft. Riddle's Van Zandt 1, nw nw se 16-18n-3e, dr 370 ft.

PONTOTOC COUNTY—Southern Oil Co.'s Young 1, ne ne se 17-3n-7e, rum. Papoose Oil et al's Jones 1, nw se nw 2-4n-5e, dr 1250 ft. Delaney et al's Norris 1, nw nw se 18-4n-8e, set 10-in csg 566 ft, td 700 ft, est 4,000,000 cf gas. Roodhouse et al's Booth 1, se nw se 20-2n-6e, rig. Clark Drlg. Co. and Delaney's Richardson 1, se se sw 30-4n-8e, lcn.

SEMINOLE COUNTY — Sinclair Prairie's Rossanna 1, nw nw sw 28-10n-8e, testing. J. E. Hall et al's White 1, se nw se 30-6n-8e, on pump. Amerada and Stanolind's Reed 1, se sw se 19-10n-8e, sdo. A. I. Spears' Keaton 1, nw nw nw 6-5n-8e, sd 3129 ft.

STEPHENS COUNTY—Edwards' Frederick 1, ne se nw 31-2n-8w, mach out. Carter Oil et al's Harley 1, cne ne 24-2s-4w, dr 5171 ft. Helmerich & Payne's Graham 1, csw sw ne 12-1n-5w, mudded in gas & sd. B. F. Lundy's Calmes 1, c nw sw se 35-1n-4w, td 4012 ft, d & a. Penn State Oil Co.'s Cole 1, c w½ sw ne 21-2n-8w, dr 4706 ft. Wm. Angle et al's Sid Lang 1, sw sw ne 24-1n-7w, sd 1200 ft. G. L. Pace et al's Tah-su-dah 1, se nw sw 27-1s-9w, sdo 2707 ft.

TEXAS COUNTY — Missouri Valley Gas Corp.'s Fitzgerald 1, c sec 17-6n-14ecm, sd. Cabot Carbon Co.'s Calvert 1, c sec 14-3n-16ecm, dr 2643 ft.

TILLMAN COUNTY—I.T.I.O. Co.'s Hatler 1, csw ne 32-2s-17w, testing. Magnolia Pet. Co.'s Brown 1, csw se ne 21-3s-18w, dr 3860 ft.

WASHITA COUNTY — McWherter et al's Fee 1, sw sw sw 34-8n-19w, dr 1810 ft.

KANSAS

BARBER COUNTY — Pryor & Lockhart's Gant 1, cse¼ 7-31s-13w, rot rig. Barbara Oil Co.'s Holmes 1-27, cnw nw 27-33s-13w, rot rig.

BARTON COUNTY—C. L. Price et al's Kraft 1, sw nw ne 10-17s-11w, 500 ft oih 12 hrs; P. 25 bbls oil & pump off; run acid. C. L. Carlock's Leibel 1, se ne se 18-18s-11w, dr 3010 ft. Geo. Dickey et al's Boger 1, se se ne 15-16s-13w, dr 2785 ft. C. L. Carlock's Ehly 1, ne ne se 5-18s-11w, td 3394 ft, 700 ft wih & 20 ft oih, 14 hrs, to pb. C. H. Weaver's Stumps 1, ne ne ne 3-17s-12w, dr 2590 ft. Wakefield et al's

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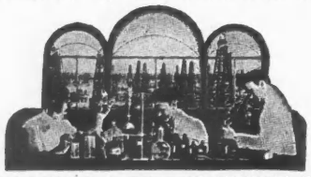

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Scheurmann 1, ne ne sw 31-16s-15w, set 8-in csg 2470 ft. Stanolind O&G Co.'s Struder 1, se se sw 26-16s-13w, set 12-in csg 256 ft, woc. S. E. Bailey's Hammeke 1, ne ne sw 12-18s-12w, sd 2190 ft. Stanolind's Meggars 1, sw sw sw 21-20s-11w, rust 3341 ft. Continental Oil Co.'s Lamatsch 1, sw ne ne 26-17s-12w, dr 1910 ft. Sam Murphy's Beck 1, ne ne ne 17-17s-12w, mim. Magnolia Pet. Co.'s Zink 1, nw nw se 13-18s-11w, set 13-in csg 200 ft, woc. Silverstein, George et al's Otte 1, se se nw 2-19s-14w, lcn. Republic Nat. Gas Co. and Continental's Moeder 1, ne ne sw 25-17s-13w, ru.

BUTLER COUNTY—C. L. Seibel et al's Bisagno 1, se se nw 24-25s-6e, td 2863 ft, D & A. Vickers Pet. Co.'s Voth 1, cnl s½ sw ne 32-24s-4e, dr 2790 ft. Kahn et al's Madden 1-A, sw sw ne 27-23s-4e, td 2218 ft. Simpson Oil et al's Dennis 1-A, ne ne sw 15-26s-6e, mim.

CHASE COUNTY—Propp et al's Fromm 1, se se se 29-18s-9w, set 6-in csg 2450 ft, dr 2450 ft.

CHAUTAUQUA COUNTY—E. I. Shaffer's Nuckalls 1, nw nw nw 12-33s-9e, set 8-in csg 1574 ft. Ira Scott et al's Lambe 1, sw nw ne 18-33s-13e, dr 1530 ft. Robinson et al's Foster 1, sw sw sw 6-33s-12e, ru mach.

COWLEY COUNTY — Ryan Consolidated's Couch 1, sw sw se 13-30s-5e, P 15 bbls oil & 10 bbls wtr. Elmer Ash et al's Bolack 1, nw nw se 22-32s-6e, ur 10-in csg 1702 ft. Bess & Gralapp et al's Wakefield 1, ne se sw 18-30s-6e, dr 1960 ft. Murta & Wilson's Turner 1, ne ne nw 30-32s-6e, dr 340 ft. Blair Continental & McKnab's Miller 1, ne nw sw 14-32s-5e, br. Tulsa Oil et al's Dillon 1, nw nw ne 28-34s-3e, br. McCoy, Amerada & Wentz's Anderson 1, se nw ne 34-34s-6e, dr 1230 ft. Tom Palmer et al's Ogroskey 1, se se nw 31-32s-5e, ru mach. J. N. Wallace's Fee 1-A, sw se sc 10-33s-4e, dr 875 ft.

DECATUR COUNTY—Bruce et al's Newbold 1, cne sw 34-2s-28w, sd.

EDWARDS COUNTY—Royal Pet. Co. et al's Krupp 1, nw nw se 18-24s-19w, dr 2834 ft.

ELK COUNTY—Republic Nat. Gas Co.'s Glasscock 1, se ne sw 19-31s-11e, ponds.

ELLIS COUNTY—Empire's Samuelson 1, ne ne ne 31-11s-16w, woc. Murphy Oil Co.'s Weisner 1, se se sw 12-14s-19w, td 3863 ft, D & A. Mazda Oil Co.'s Henderson 1, sw sw ne 27-11s-18w, dr 2240 ft. Noble Pet. Corp.'s O'Laughlin 1, nw nw se 13-12s-19w, set 7-in csg 3690 ft. Wakefield's Putnam Mort Co. 1, se se nw 32-15s-17w, td 3484 ft, D & A. Bridgeport Mach. et al's Froelick 1, nw nw se 4-13s-16w, dr 2782 ft. J. C. Shaffer, Inc.'s Staab 1, se se se 25-12s-18w, dr 725 ft. Elwell & Trees Oil Co.'s Karlin 1, nw nw nw 13-12s-18w, mim. Twin Drlg. Co. et al's Craig 1, ne ne se 6-11s-16w, rur.

ELLSWORTH COUNTY — Orville Lee's Larkin 1, nw nw nw 15-16s-8w, fsg 395 ft. Frost et al's Dolechek 1, ne ne sw 36-14s-8w, set 8-in csg 3020 ft. flo 1½ bbls wtr.

GREENWOOD COUNTY—Ohio Oil Co.'s Schwab 1, se sw se 9-24s-10e, td 2766 ft, 500 gal A; P 155 bbls oil & 15% wtr; comp. Schull Drlg. Co.'s Cannon 1, ne se ne 23-25s-12e, td 1865 ft, D & A. L. C. Balwanz's Travellers Ins. Co. 1, csw sw 23-26s-10e, ur 6-in csg 1800 ft. B & B Oil Co.'s Webb 1, cne se 3-26s-13e, dr 630 ft.

HAMILTON COUNTY—Denver P & R et al's Porter 1, sw sw ne 30-25s-41w, rur.

HARPER COUNTY—Carter Oil Co. et al's Seihart Estate 1, csw nw 4-34s-8w, cor.

HARVEY COUNTY—E. I. Shaffer et al's Epp 1, se se sw 15-23s-3w, cel. E. J. & E. B. Shawver's Hege 1, ne ne se 26-22s-2w, rur. Bell O&G Co. et al's Austin 1, se ne ne 28-23s-1e, rot rig. Simpson & Noble et al's Pierce 1, sw se ne 25-22s-2w, lcn.

LOGAN COUNTY—Rosespring Drlg. Co. et al's Wright 1, cse se 12-15s-35w, dr pipe stuck at 4910 ft.

MARION COUNTY—Western Kans. O&R et al's Suderman 1, se sw nw 22-20s-2e, lcn.

McPHERSON COUNTY — Bradley Bros.' Barnholt 1, sw sw se 30-20s-5w, dr 2450 ft. Smith et al's Larson 1, nw nw sw 35-18s-5w, dr 650 ft. Lauck & Moncrief's Krehbiel 1, se se sw 27-21s-2w, td 3665 ft, D & A. C. E. Ash Drlg. Co.'s Broman 1, ne ne nw 19-17n-4w, cel.

MITCHELL COUNTY—Geo. Seidhoff et al's Greiss 1, sw sw se 16-8s-10w, ur 8-in csg 2890 ft.

NESS COUNTY—Newton Dev. Co.'s Tenny 1, nw nw se 19-18s-25w, set 6-in csg 4240 ft; sd 4300 ft. Jones & Lanes' Page Milling Co. 1, se se nw 36-18s-26w, rtb.

OSBOURNE COUNTY — J. E. Waldron's Neuschwanger 1, se ne nw 11-8s-14w, snd & sd.

PAWNEE COUNTY—Canshaw et al's Riederer 1, cw¼ nw se 29-21s-19w, dr 4435 ft.

RENO COUNTY—Clyde Pulse et al's Payne 1, sw nw ne 4-22s-7w, fsg csg. Imo O&G Co. et al's Watkins 1, se se se 14-22s-7w, dr 1700 ft. Westgate-Greenland Oil Co.'s O'Sullivan 1, sw sw ne 24-23s-5w, dr 3749 ft. Sinclair Prairie's Nett 1, nw nw se 32-26s-4w, dr 3625 ft. Torry & Feaster's Schroeder 1, se se se 1-23s-7w, lcn abd.

RICE COUNTY—L. E. Douglas' Coyne 1, ne se se 24-21s-8w, dr 2765 ft. John Hanna et al's Fulton 1, nw nw ne 24-19s-6w, sd 3008 ft. Fred Phillips et al's Hubenett 1, sw ne sw 23-20s-8w, set 8-in csg 2910 ft, co. Union O&R Co. et al's Baker 1, sw sw ne 33-20s-6w, dr 2970 ft. Comanche Oil Co.'s Cramm 1, sw sw se 15-19s-9w, dr 830 ft. Hipple et al's Wernet 1, ne ne nw 11-20s-6w, sd 1655 ft. Empire O&R Co.'s Bredfeldt 1, cn½ n½ sw 7-18s-9w, set 6-in csg 3228 ft, rust. Shell Pet. Corp.'s Haxton 1-B, ne ne sw 29-18s-9w, set 12-in csg 196 ft, woc 206 ft. Stanolind O&G Co.'s Mooney 1, ne ne sw 5-19s-10w, lcn. H. V. Holland et al's Brothers 1, se se se 12-21s-7w, mim.

ROOKS COUNTY—Lester & Dean's Burtt 1, se se ne 29-10s-20w, set 5-in csg 3680 ft. Jones Bros. Drlg. Co.'s Wiss 1, nw nw nw 8-10s-8w, dr 3160 ft. Basin Oil Co.'s Baxa 1, ne ne ne 23-9s-17w, fsg 3575 ft. S. C. Hoel et al's Ives 1, sw sw ne 11-7s-18w, sd 485 ft. Brunson Drlg. Co. et al's Casey 1, se se ne 22-9s-16w, dr 1125 ft. Graham et al's Fike 1, sw sw sw 9-9s-17w, fsg 3301 ft. C. R. Craft et al's Ziegler 1, ne ne sw 8-10s-16w, rig.

RUSH COUNTY—S. A. Murphy et al's Roth 1, nw nw sw 21-16s-18w, fsg 2605 ft. Duee & Brouk's Lebsack 1, se se ne 13-16s-16w, ur 12-in csg 992 ft. Westgate-Greenland Oil Co. et al's Greenwald 1, nw nw ne 19-19s-16w, rur.

RUSSELL COUNTY—S. A. Murphy et al's Deines 1, se se sw 36-15s-15w, set 8-in csg 2623 ft, dr 2629 ft. Goldstein & Vernon O&G Co.'s Steinert Estate 1, ne se sw 34-15s-15w, dr 830 ft. Aylward et al's Jones 1, se se nw 22-14s-13w, ru. Equity Gas Co.'s Harbauk 1, nw ne sw 19-13s-12w, dr 1725 ft.

SCOTT COUNTY—Olson Drlg. Co. et al's Nolan 1, nw nw ne 13-19s-33w, sd 2282 ft.

SEDGWICK COUNTY — Cameron et al's Smith 1, sw se se 13-27s-2e, 600 ft wih, 3237-38 ft. Swearer's Thome 1, sw sw nw 19-28s-1w, hfw, dr 3793 ft. Roxanna Drlg. Co. et al's Woodman 1, sw nw sw 26-26s-1w, co 2469 ft. E. B. Shawver's Furman 1, sw ne se 24-29s-3w, ur 13-in csg 1616 ft.

STAFFORD COUNTY—W. P. Faulkner's Schulz 1, se se ne 6-22s-13w, ru.

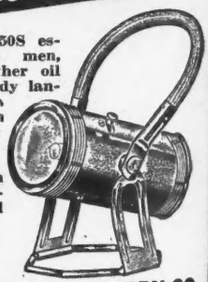
SUMNER COUNTY—Graham et al's Dawson 1, nw nw nw 4-33s-2w, fsg 4255 ft. The Texas Co.'s Harper 1, ne sw se 9-30s-3w, dr 3925 ft. Faulkner et al's Nevitt 1, ne nw ne 36-32s-2e, P 3 bbls oil per hr and sw. Gilmac Oil et al's Proud 1, sw se se 33-30s-1w, dr 793 ft. John Burton et al's Springate 1, ne ne sw 30-33s-2e, rig.

TREGO COUNTY—W. I. Southern, Inc.'s Latimer 1, nw nw se 19-15s-22w, set 12-in csg 202 ft, dr 1480 ft.

WOODSON COUNTY—Katz et al's Guy 1, sw sw se 6-24s-15e, dr 1530 ft. B & B Oil Co.'s Lockard 1, nw nw ne 2-26s-13e, mach. M. B. Allen's Flack 1, ne ne nw 1-26s-14e, dr 350 ft.

The Board for Lease of Texas Prison Lands will on June 15, 1937, at 10 o'clock A.M. receive bids for oil and gas leases on West 2400 acres of Ramsey State Farm in Stephen F. Austin League No. 9, Brazoria County, Texas, beginning at Brazos River and going east, tract being divided into blocks of approximately one hundred sixty acres each. Write Wm. H. McDonald, Land Commissioner, Austin, Texas, for particulars.

ECOLITE 50S is *Safe!*
THROWS A POWERFUL SPOT



We made Ecolite 50S especially for pipe men, gaugers and all other oil men needing a handy lantern that will throw a strong spot for a long distance. It's recommended by Underwriters' Laboratories and is safe in the presence of inflammable gases and vapors.

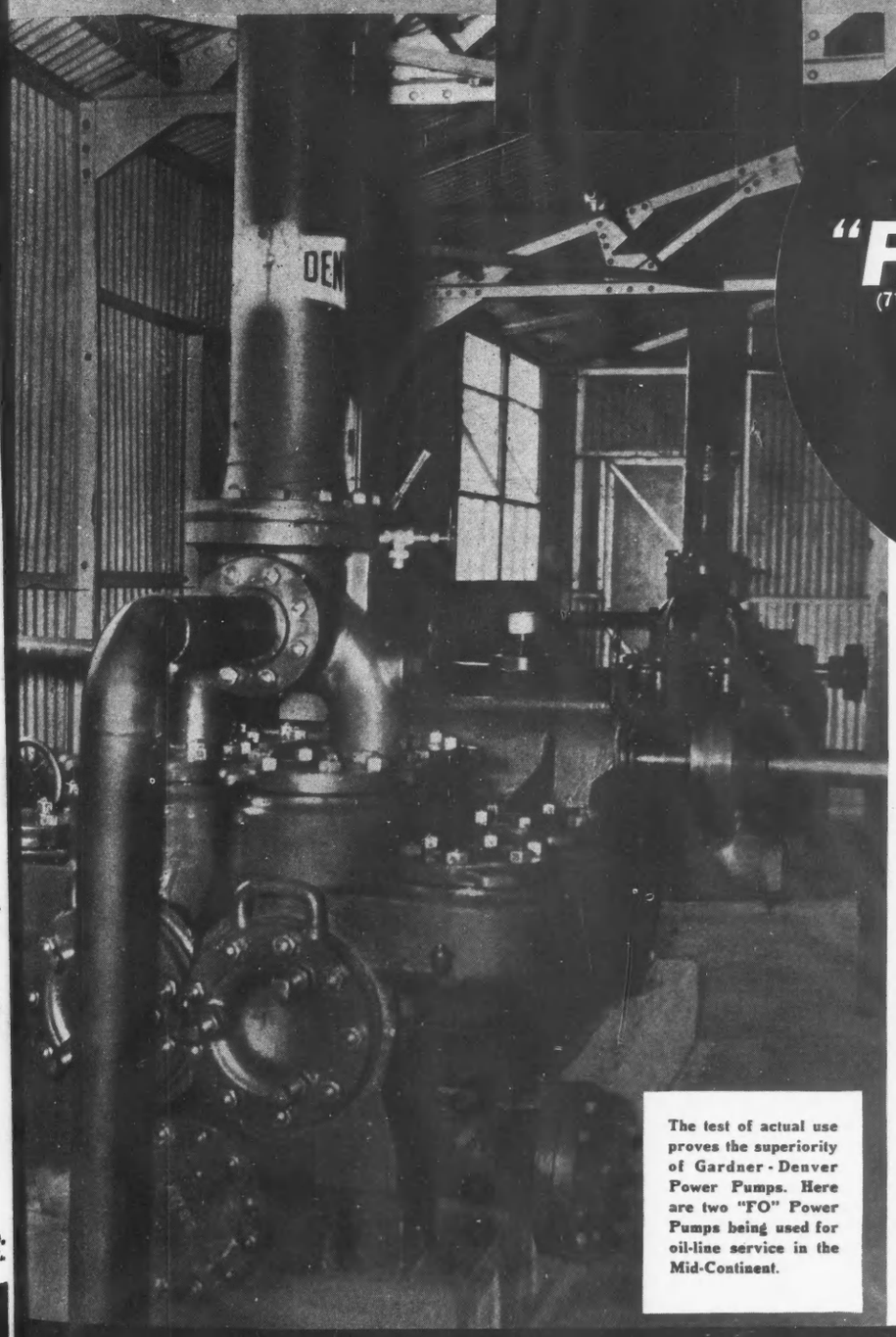
AVAILABLE AT SUPPLY STORES

ECONOMY ELECTRIC LANTERN CO.
325 W. HURON ST. CHICAGO, ILL.

ECOLITE

Your No. 1 Choice

FOR RELIABLE HEAVY-DUTY OIL LINE SERVICE



The test of actual use proves the superiority of Gardner-Denver Power Pumps. Here are two "FO" Power Pumps being used for oil-line service in the Mid-Continent.

GARDNER DENVER "FO" (7¼ x 10) & "FXO" (5 x 10) POWER PUMPS

● **HIGHER MECHANICAL EFFICIENCY** —better design throughout; herring-bone gears in flood lubricated power end.

● **LONGER LIFE OF WORKING PARTS** —divided fluid cylinder construction (without inner baffles) surge chamber cushions shocks; durable, lightweight valves; exceptional accessibility.

● **BACKED BY A FAMOUS REPUTATION** —built to Gardner-Denver standards; embodying improvements which have made Gardner-Denver a leader in manufacturing pumps for the oil country.

Write us for full details.

GARDNER-DENVER COMPANY
Quincy, Illinois
DALLAS HOUSTON KILGORE
TULSA LOS ANGELES
Since 1859

GARDNER-DENVER

PRECISE *for* Longer Life..

Like a fine gun—Baldwin Super Service Oil Field Chain is scientifically designed and built to precision standards.

It combines the best in alloy steels, heat treated in accordance with most modern practice, with precision machining.

SIDE BARS—of rugged design, holes accurately *broached* to size and pitch.

ROLLERS—of solid bar alloy steel, accurately machined, with maximum strength, toughness and resilience developed to highest degree by skillful heat treatments.

BUSHINGS—of solid bar alloy steel, ground internally and externally, and keyed to side bars to prevent rotation.

PINS—of alloy steel—*forged*, ground to precision limits, also keyed to side bars to prevent rotation.

Result—Baldwin Oil Field Chains 1030SS and 1240SS are giving Longer Life—Uninterrupted Drilling, with fewer repairs—LESS COST PER FOOT OF HOLE DRILLED.

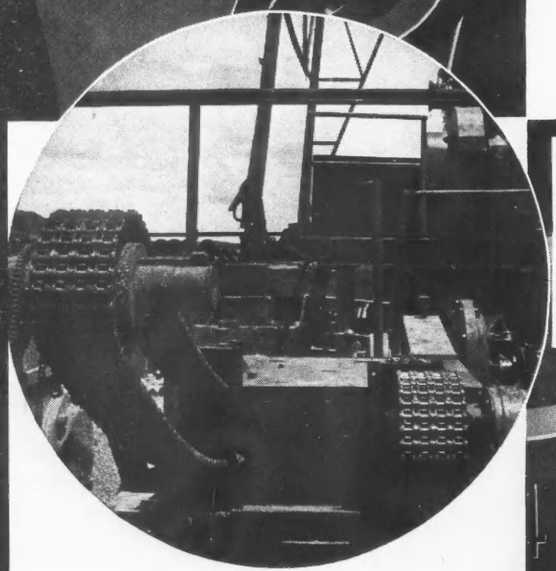
AVAILABLE IN ALL OIL FIELDS

BALDWIN-DUCKWORTH CHAIN CORPORATION

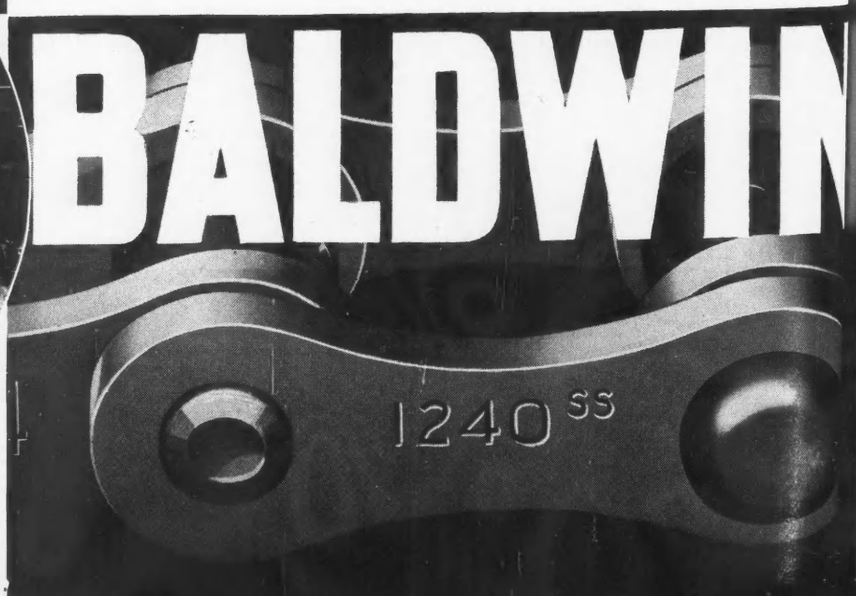
Factories at Springfield and Worcester, Massachusetts

Factory Representative: **George J. Fix, Dallas, Texas**
Export Department: **Oil Industry Appliances Co., 39 Cortlandt St., New York City**

ASK THE DRILLER .. *He Knows*



Typical Baldwin-Duckworth Multiple Strand Roller Chain Installation



NEW PRODUCTS FOR THE FIELD
Machinery • Tools • Catalogs • Books

ANGLE COMPRESSOR UNIT
Cooper-Bessemer Corporation

The Cooper-Bessemer Corporation, heretofore builders of compressor units of both the horizontal and vertical types, report the satisfactory conclusion of long tests on a combination vertical gas engine and horizontal compressor — an "angle" compressor unit—of advanced design, by which the ruggedness and dependability of the approved horizontal unit are in great measure retained, along with the compactness, quick installation, and low initial installed cost afforded by the new departure.

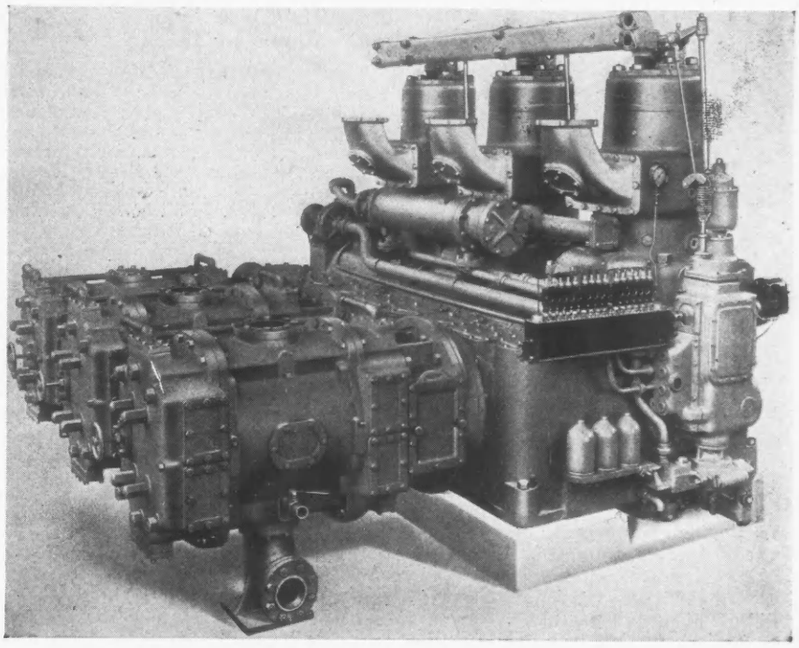
This angle unit, to be known as Type G-MR, is of two-cycle design, having two, three, or four power cylinders according to requirement, the rated horsepower being 75 for each cylinder and ranging, therefore, from 150 to 300 horsepower. The unit is factory-assembled and tested and is so constructed, with all power and compressor cylinders rigidly attached to a common base, that it can be shipped by rail or truck without fear of disturbing the alignment of any part. Arriving at the site, it can be set down on its prepared foundation and is almost immediately ready to operate.

"Streamline" scavenging is a distinctive point of the power-cylinder design to which the manufacturers direct attention. It is accomplished by so shaping the piston tops and the scavenging ports as to direct the flow upward from the inlet port and downward to the exhaust port, with no dead pockets anywhere between. This results, it is said, not only in complete expulsion of burned gases and replacement of fresh air but also in greatly increased turbulence by which fuel and air are perfectly mixed together for minimum fuel consumption and maximum power output.

Pressure lubrication to all bearing parts is emphasized. The piston is oil-cooled but without crossbore openings through the piston walls, by which lube oil consumption is minimized.

The cooling-water pump is an integral part of the unit, being driven by an adjustable V belt from the engine. Water jackets are ample and easily cleaned when necessary.

One other advantage announced is that the engine will be convertible from gas to oil or oil to gas fuel at any time after installation.



Cooper-Bessemer Type G-MR-3 two-cycle Angle Compressor Unit, rated 225 horsepower.

Compressor-cylinder sizes can be furnished to deliver volume and pressure in any desired relation within the rated horsepower capacity of the unit. The number of compressor cylinders equal the number of power cylinders and may be single or multi-stage, as required.

A wide range of usefulness is foreseen by the builders of this angle compressor —in booster stations, gasoline plants, refineries, gas-lift or repressuring operations, refrigeration service, and other special applications where the power requirements match the available sizes.

OIL PIPE LINE PUMP
Goulds Pumps, Inc.

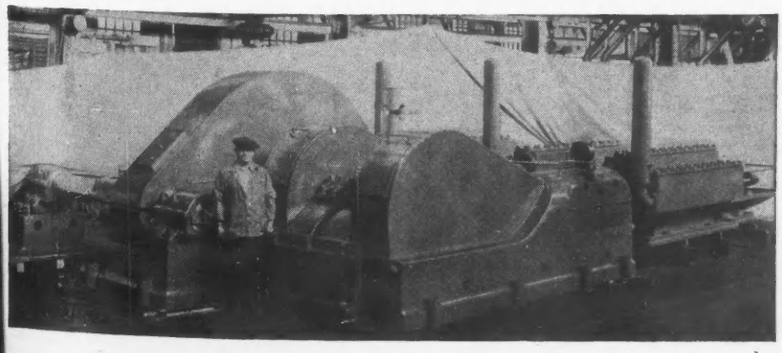
Goulds Pumps, Inc., Seneca Falls, New York, has completed construction of the largest oil pipe line pump ever built in this country. It is being shipped to the Southwestern oil fields where it will be put into immediate service.

The huge pump, of the horizontal triplex double-acting plunger type with a 38-inch stroke, weighs approximately 75 tons. Capacity is 58,000 barrels of oil per day.

The pump has three cylinders, each weighing 9400 pounds, machined out of solid steel forging. The gear wheel is 9 feet, 2 inches in diameter and weighs 8500 pounds while the pinion shaft and drive shaft diameters are 10 and 12 inches respectively.

The center frame casting, weighing over 10 tons, is the largest casting ever poured in the foundry of the Goulds plant. It is approximately 13½ feet long, 5 feet wide and 4½ feet high. Three flat cars were required to ship the pump.

Work has been started on a second pump of the same size.



Goulds Oil Pipe Line Pumps

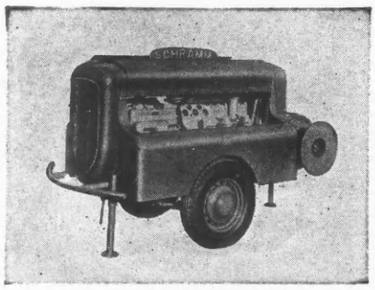
COMPRESSOR
Schramm, Inc.

Schramm, Inc., West Chester, Penna., has announced a new, compact, lightweight, portable air compressor, available in sizes 85 and 105 cubic feet actual air delivery in the gasoline engine-driven machines and in the 105 cubic foot size in the Diesel powered unit.

Features include four cylinder, vertical block with light pistons; five main bearings; force-feed lubrication supplied by gear-driven oil pump to all movable parts; mechanical intake valves operated from camshaft, electric self-start-

ing, and the self-aligning clutch between engine and compressor. It is a complete air plant with air and gas tanks compactly under the hood. This machine can be mounted on a half or three quarter ton truck.

The semi-portable skid mounting has proved to be practical for mounting behind truck cabs on large trucks where it is not desirable to devote the entire



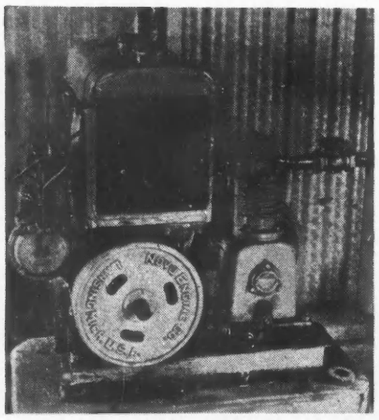
Schramm Compressor

truck body to an air compressor. Two portable mountings are offered in the form of a two-wheel pneumatic tire spring trailer which can be towed at speeds up to 40 miles per hour.

COMPRESSOR

Novo Engine Company

Novo Engine Company, Lansing, Michigan, is introducing a new line of single- and two-stage engine-driven air compressors for Diesel, oil and gas engine starting. These compressors are all V belt-driven from Novo single- and two-cylinder, anti-friction bearing equipped gasoline engines.



Novo Unit No. 1841 with 9.3 cubic feet displacement, 200 pounds maximum pressure for starting Diesel power pumping unit.

All units are equipped standard to operate on either gas or gasoline, requiring no change over or purchase of parts in the field for natural gas operation. These units are being handled throughout the oil fields by The National Supply Company, exclusive distributor of Novo oil field equipment.

New Mid-Continent Supply Store at Lisbon, Louisiana

Mid-Continent Supply Company, Fort Worth, Texas, announce opening of a new store at Lisbon, Louisiana, with C. G. Colwell as store manager.

This Week with the Industry's EQUIPMENT SUPPLIERS

Bloss Made President of International of Texas

At a recent board of directors meeting of the International Derrick & Equipment Company of Texas, Richard R. Bloss was elected president and general manager. Bloss has been vice president and general manager. He succeeds L. J. Brown, who continues as a member of the board of directors, and as president of International-Stacey Corporation. The entire board of directors were reelected at the stockholders meeting.

Allis-Chalmers Opens Plant Addition at Springfield

Fred E. Cooper and his organization of Tulsa, participated in the sales conference and equipment show held recently at Springfield, Illinois, in conjunction with the opening of a million dollar addition to the Allis-Chalmers Manufacturing Company plant, which doubles the company's production capacity on track-type tractors.

A display of Allis-Chalmers tractors and allied equipment was one of the high-lights of the meeting. In addition to a complete line of A-C track-type and wheel-type tractors, Speed Patrols, blade graders, power units and Speed Ace hauling units, the exhibit included more than 100 units of allied equipment to work with the tractors.

Of special interest was the company's new 64-H.P. Model "S-O" controlled-ignition oil tractor. Its features include higher speeds—up to 6.37 miles an hour, constant mesh transmission, truck-type gear shift, roller bearing tracks and controlled alignment of tracks. Complete allied equipment for this model was included in the display.

The new plant addition is modern in

Fred E. Cooper Company had this delegation at the A-C convention and show. Seated (left to right) are A. G. Bailey, Fred E. Cooper and Harold Cooper. Standing are Oscar Payne, H. B. Bloxom and Harry Allen.

RICHARD R. BLOSS
New President International Derrick in Texas

every respect and is well equipped with the latest, most efficient tooling and machinery. Four production lines are now in operation, one for each of the "L," "K," "S" and "M" models.

E. M. Smith Company Establishes Warehouse in Houston

The E. M. Smith Company, Los Angeles, has recently opened a Gulf Coast warehouse at 2311 West Street, Houston, where complete stocks of all Grizzly industrial products will be maintained. A Grizzly Brake Band exchange has been established permitting oil operators to exchange worn bands for new ones. In addition to the brake band exchange, stocks of rotary hose, couplings, line savers and pipe protectors will be maintained.

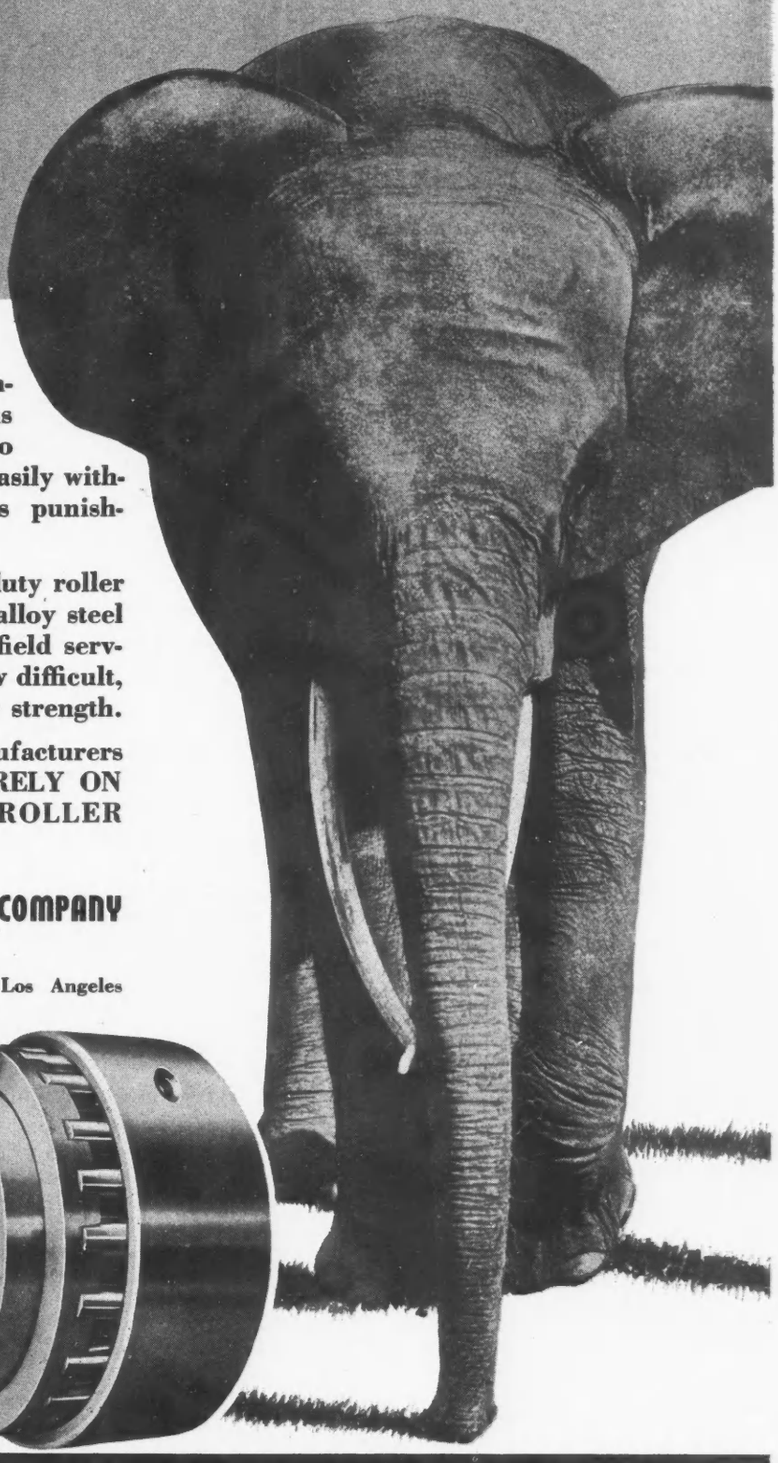
The warehouse is in charge of Earl L. Chadwick, Gulf Coast manager, recently transferred here from the West Coast.

Hunt Tool Company Successor to Authorized Appleman Bit Service

Hunt Tool Company, Houston, manufacturer of the Hunt wire line core barrel and a complete line of oil well drilling bits, is the successor to Authorized Appleman Bit Service Company following the recent change of name and amended charter. The change in name of the corporation followed an increase in capitalization from $20,000 to $100,000 and a wide expansion program of the organization. Houston headquarters of the company recently has undergone a program of shop and office expansion which approximately doubled the size of the

SO TOUGH THEY NEVER TIRE

. . . so strong they never fail



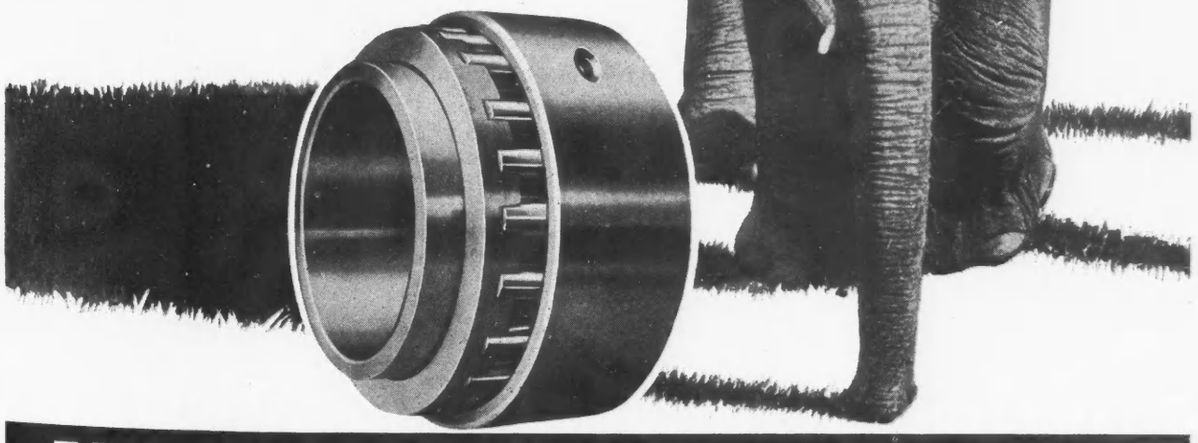
No other bearing compares with Americans for sheer strength. No other bearing can so easily withstand the tremendous punishment of heavy-duty drilling.

Americans are heavy-duty roller bearings . . . built from a super alloy steel . . . designed specifically for oil-field service. No installation, no matter how difficult, has ever found the limit of their strength.

Do as 30 other manufacturers of drilling equipment do . . . RELY ON AMERICAN HEAVY-DUTY ROLLER BEARINGS!

THE AMERICAN ROLLER BEARING COMPANY
Pittsburgh, Pa.

Pacific Coast Office: **321 W. Pico St., Los Angeles**



AMERICAN ***HEAVY DUTY ROLLER BEARINGS***

CAN YOU CAP THIS ONE?

HERE'S A "RICH STRIKE" in Efficiency and Economy.

Can your boilers run twelve months or more without a shutdown, tube cleaning and repairs?

Can they continue to produce clean and economical steam regardless of the operating conditions?

Do you have that absolute certainty that scale and corrosion isn't forming?

If not, you can have all this—and more—with . . .

SAND BANUM

"The Entirely Different Boiler and Engine Treatment"

Sand-Banum is simplicity in itself to use. Comes *ready for use* in 16 ounce cans—*a few ounces* in each boiler or engine from one to four times per month completes the treatment. The pure colloidal-mechanical action of Sand-Banum does the rest.

Let Sand-Banum give you more time and money to spend on the production of oil. Try it today on our "Satisfaction or No Money" guarantee. Or, if you prefer, first send for booklet "HOW and WHY."

AMERICAN SAND-BANUM COMPANY, Inc.

9 Rockefeller Plaza, New York City

Stocks Carried by
WESTERN SAND-BANUM COMPANY
Houston, Tex., Fresno, Calif.
and at other convenient points including leading supply houses.

plant. A new branch office and shop was recently opened at Jennings, Louisiana.

Officers of Hunt Tool Company are

TOM N. HUNT

T. N. Hunt, president; P. M. Hunt, vice president, and U. V. Seales, secretary-treasurer. The company has grown in five years from a small bit shop employing less than a dozen men to a personnel of 110 employes. Field branches are operated at Joinerville, Talco, Corpus Christi, Bay City, and Alvin, Texas, and Rodessa, Jennings, and Houma, Louisiana. The company operates more than 35 service trucks and cars in the fields.

Chiksan Sales Manager on Extended Trip

"Slats" Love, sales manager of Chiksan Oil Tool Company, Fullerton, California, is on a two months auto trip through the Mid-Continent and Gulf Coast territories. Visiting Texas, Oklahoma, and Kansas he will check up on field developments in this area, particularly on pressure drilling.

American Iron & Machine Works Opens Shop at Monahans, Texas

American Iron & Machine Works Company has just completed and opened for service new, modern machine shop and warehouse at Monahans, Texas.

M. G. McCool, for two years representative in West Texas and New Mexico for the company, will be in charge of the new branch.

American Iron & Machine Works Company's Monahans Warehouse

U. V. SEALES

President and secretary-treasurer of Hunt Tool Company

General Motors Corporation Forms Diesel Division

A new division of General Motors Corporation to be known as the Diesel engine division, has been announced by Alfred P. Sloan, Jr.

The new division will manufacture a line of Winton Diesel engines, beginning with a 20-horsepower single unit, up to a 160-horsepower 6-cylinder unit. The manufacture of Diesel engine fuel injectors, which has been carried on in the General Motors Research Laboratories for the past seven years, will be moved to a new plant as soon as possible.

Erection of the new plant at Detroit will start at once, according to the announcement.

An engineering laboratory will be erected first, where all development and test work will be done on Diesel engines for the Winton Engine Manufacturing Corporation and the Electro-Motive Corporation, as well as for the new division. The laboratory will also contain a Diesel-electric power plant for supplying all power to the manufacturing plant.

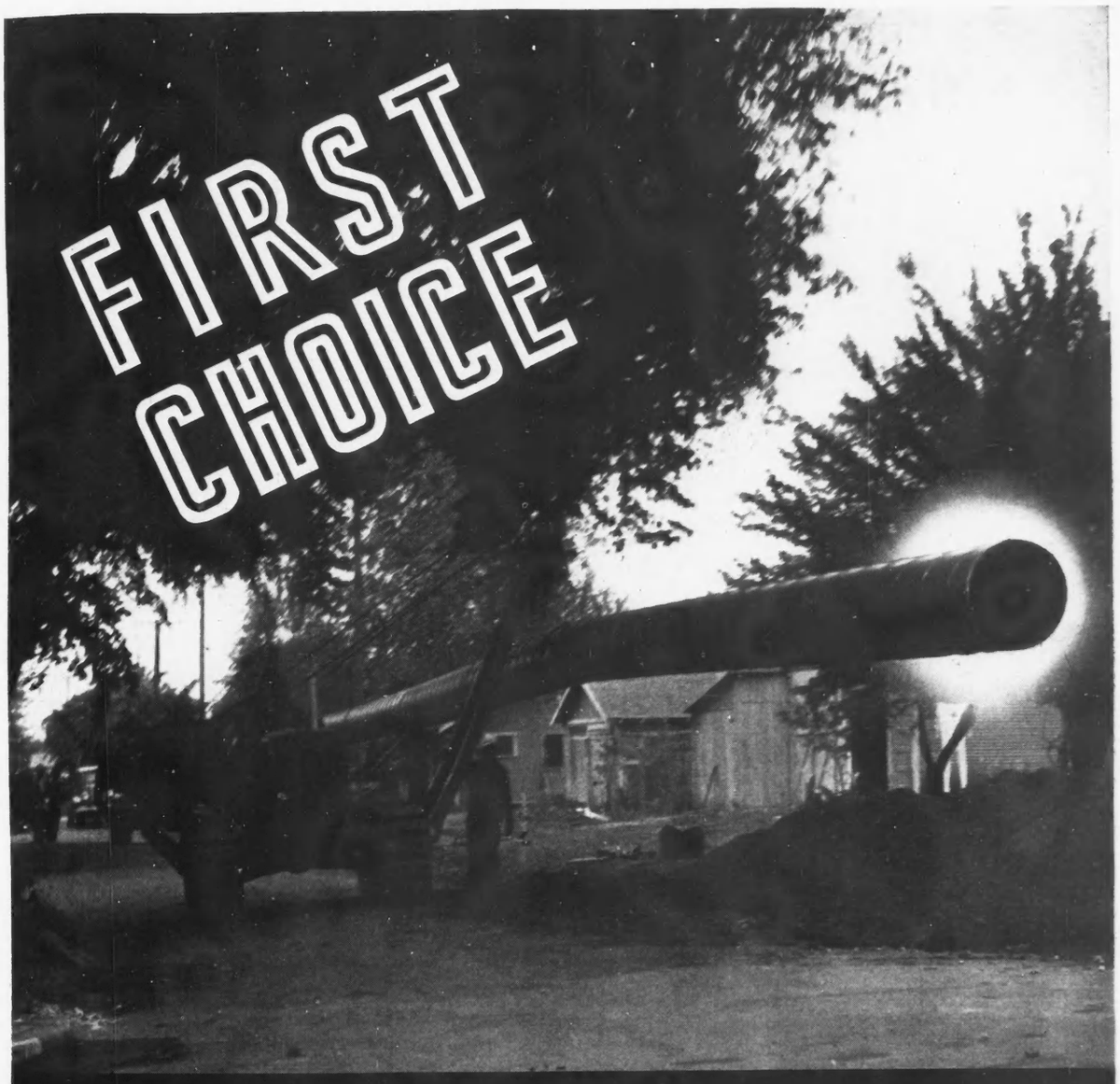
W. T. Crowe has been appointed general manager of the new division.

Daniel Orifice Fitting Company in New Home

Daniel Orifice Fitting Company has moved into a new location at 3352 Union Pacific Avenue, Los Angeles. This move has enabled the company to expand its facilities and install new machinery.

Century Electric Company Moves New York Office

The New York office of Century Electric Company, James Larkin, district sales manager, is being moved from 50 Church Street, into larger quarters in the Underwood Building, 30 Vesey Street.



FOR GAS GATHERING LINES—
NAYLOR LOCKSEAM SPIRALWELD PIPE

There are good reasons why more Naylor Pipe is used for gas gathering lines than any other light weight pipe today. Most significant is the distinctive Naylor Lockseam Spiralweld structure.

Correct in principle, dependable in performance, the Naylor structure is entirely responsible for the unrivaled benefits offered by Naylor Pipe. It contributes greater structural strength than other light weight pipe made of steel or iron of the same wall thickness. The spiral structure provides greater flexibility, insures closer conformity to topographical conditions than rigid pipe structures. It takes care of expansion, contraction, shock loads and vibration, and protects the coupling medium and the body of the pipe itself from the brunt of these forces.

MID-CONTINENT SUPPLY COMPANY
FORT WORTH, TEXAS, AND BRANCHES
EXCLUSIVE DISTRIBUTOR
in Arkansas, Kansas, Louisiana, New Mexico, Oklahoma and Texas

Coupled with the economy of light weight, these factors are reason enough why engineers prefer and specify Naylor Lockseam Spiralweld Pipe.

For descriptive catalog and prices, call us or our distributors.

NAYLOR PIPE COMPANY - CHICAGO, ILLINOIS

Squeaks from the Bull Wheel

Just the Man

The tightrope walker, who had been at liberty for months, received a sudden call from his agent and he rushed down town to get the big news.

"I have something very special for you," informed the agent. "Did you ever see men walking up and down in front of a place with signs on their backs, picketing the spot?"

The tightrope walker wrinkled his brow.

"Sure I have," he said. "But what has that got to do with me?"

"Just this," stated the agent. "The fellow that the union wants you to picket has his shop on the third floor."

The Saving

Scots Barber (engaging assistant)—I pay lower wages in summer because the work's easier.

Applicant—But people get their hair cut just the same.

Barber—Ay, but ye dinna hae to help them on wi' their overcoats.

Modern Elizabethan

An English dramatist was asked to check and correct some dialogue in a Hollywood film dealing with Queen Elizabeth and Mary Queen of Scots. He pointed out that to make Queen Elizabeth say, "Well, Mary, I guess I've got one up on you," was hardly the language of the period.

The producer altered it and proudly displayed the amended version, with the comment: "It's a hundred percent Elizabethan now."

It read: "Well, Mary, I guess I've got one up on you, forsooth."

The Last Resort

In his announcement one Sunday morning the minister regretted that money was not coming in quickly enough—but he was no pessimist.

"We have tried," he said, "to raise the necessary money in the usual manner. We have tried honestly. Now we are going to see what a bazaar can do."

Safe

"I need five bucks and I don't know where to get it."

"I'm glad of that. I was afraid you thought you could get it from me."

Ho, Hum

He was relating one of his long-winded stories that everybody knew by heart. He was describing a trip to the Grand Canyon.

"The soft curtain of night was just falling," he orated. "There I stood, drinking in the scene, with the giant abyss yawning before me."

One of the listeners interrupted at this point. "I say, old chap, was that abyss yawning before you got there?"

All Depends

Stranger—I hear you have a fine cow now. What will you take for her?

Farmer (cautiously)—Wait a minute! Are you the new tax assessor or has my cow been killed on the railroad?

Forgetful

The druggist was instructing his absent-minded delivery boy to take some medicine to a Mr. Crummack.

"Now remember his name is Crummack. It rhymes with stomach," was the druggist's final warning.

About an hour later the boy returned, saying there was no Mr. Kelly anywhere around that street number.

Casting

Leading Man: "I can't play Hamlet tonight with a growth like this. You must give me the price of a shave."

Manager: "Fifteen cents? Can't be done. We'll do Macbeth instead."

Not Needed

"Better stick up a bit of a scarecrow to frighten the birds off that seed."

"Oh there's no need—I'm always in the garden myself."

Proof

A lady residing in a suburb became interested in a gang of workmen who were making some street repairs in front of her house. She halted to watch the operations.

"Which one is the foreman?" she asked.

"I am," stated a broad-shouldered Irishman with a proud smile.

"Really, are you?"

"Am I?" he asked. "I'll prove it to ye, ma'am." He glanced about, singling out the nearest workman. "Dugan," he barked, "y're fired!"

The Professor Again

William you haven't kissed me for three whole days.

You don't say! Then whom have I been kissing?

Once Enough

A proud parent called up the paper and reported the birth of twins. The girl at the news desk didn't quite catch the message over the phone.

"Will you repeat that?" she asked.

"Not if I can help it," was the reply.

Friend?

"Old friend, I pity you!"

"Why?"

"I have bought my wife a new car and she has gone to show it to your wife!"

The teacher had asked her class to write a short composition on the subject, "Water."

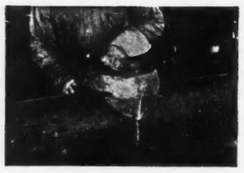
One scholar seemed to be having difficulty, but finally he turned in his paper, and here is what he wrote:

"Water is a light-colored, wet liquid, which turns dark when you wash in it."

WELDOLETS AND THREADOLETS

THE MODERN METHOD OF MAKING WELDED BRANCH CONNECTIONS!

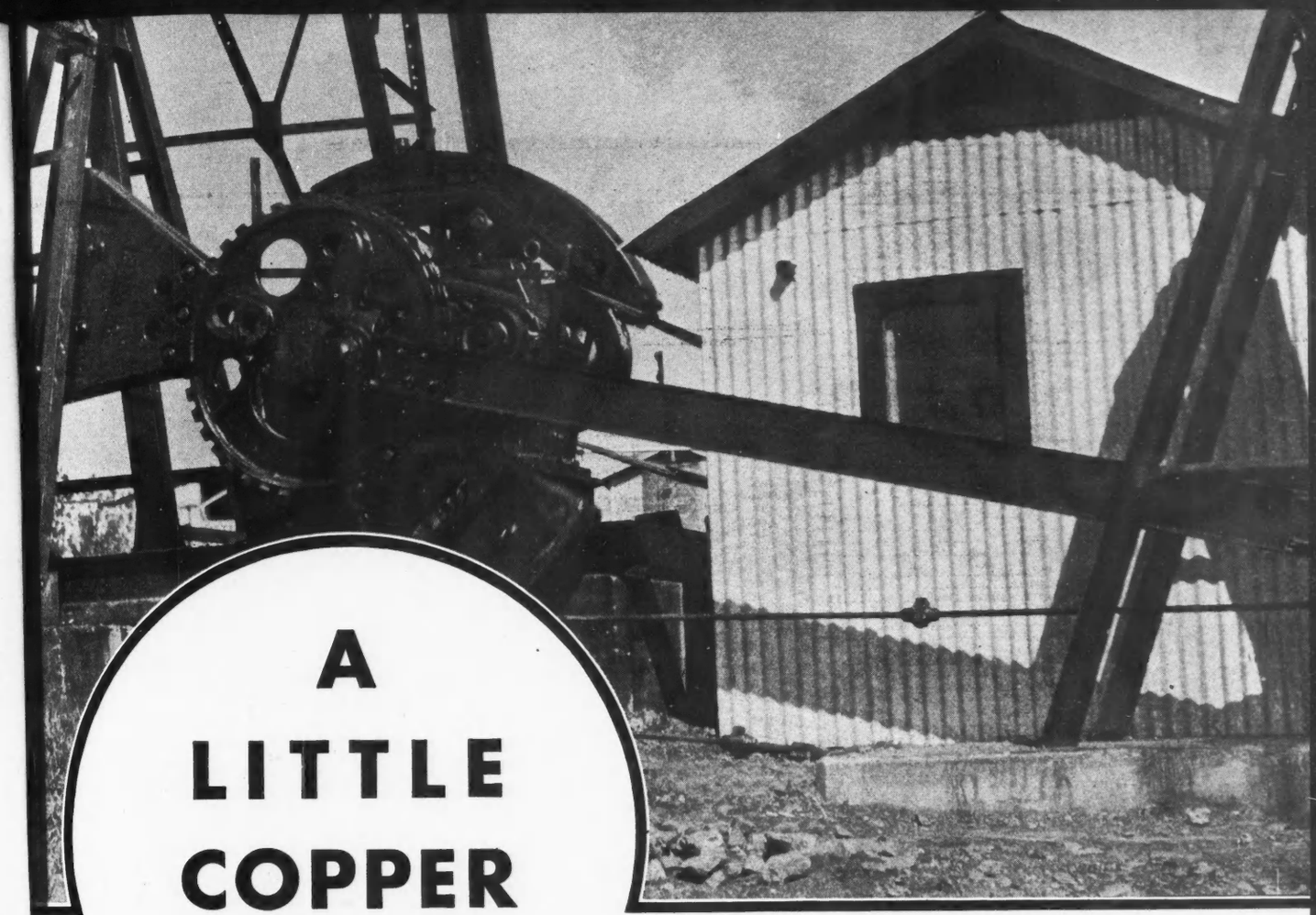
Welds to main pipe and junction completed by either welding branch pipe to Weldolet or screwing pipe in Threadolet. Easy and economical to install. No templates or complicated cutting of main pipe required. Provides increased area for unrestricted flow and stronger leak-proof joints.



Showing simple method of locating center lines of branch on main pipe prior to installing Weldolet.

MAINTENANCE ENGINEERING CORP.

3611 CLINTON DRIVE Telephone P-3135, L.D. 409 HOUSTON, TEXAS



A LITTLE COPPER *adds a LOT of Protection*

A FRACTION of one percent of copper added to molten steel approximately doubles the life of the steel itself when exposed to atmospheric corrosion. This has been proved by our own tests and by those of outside experts.

For this reason, USS Copper Steel Galvanized Sheets are the economical buy for roofing and siding. This cheaper protection for your investments in machinery may cost a few cents more in the beginning but it soon pays profits.

For roofing and siding, tank sheets, culvert and flume sheets, always specify USS Copper Steel Black and Galvanized Sheets.

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UNITED STATES STEEL

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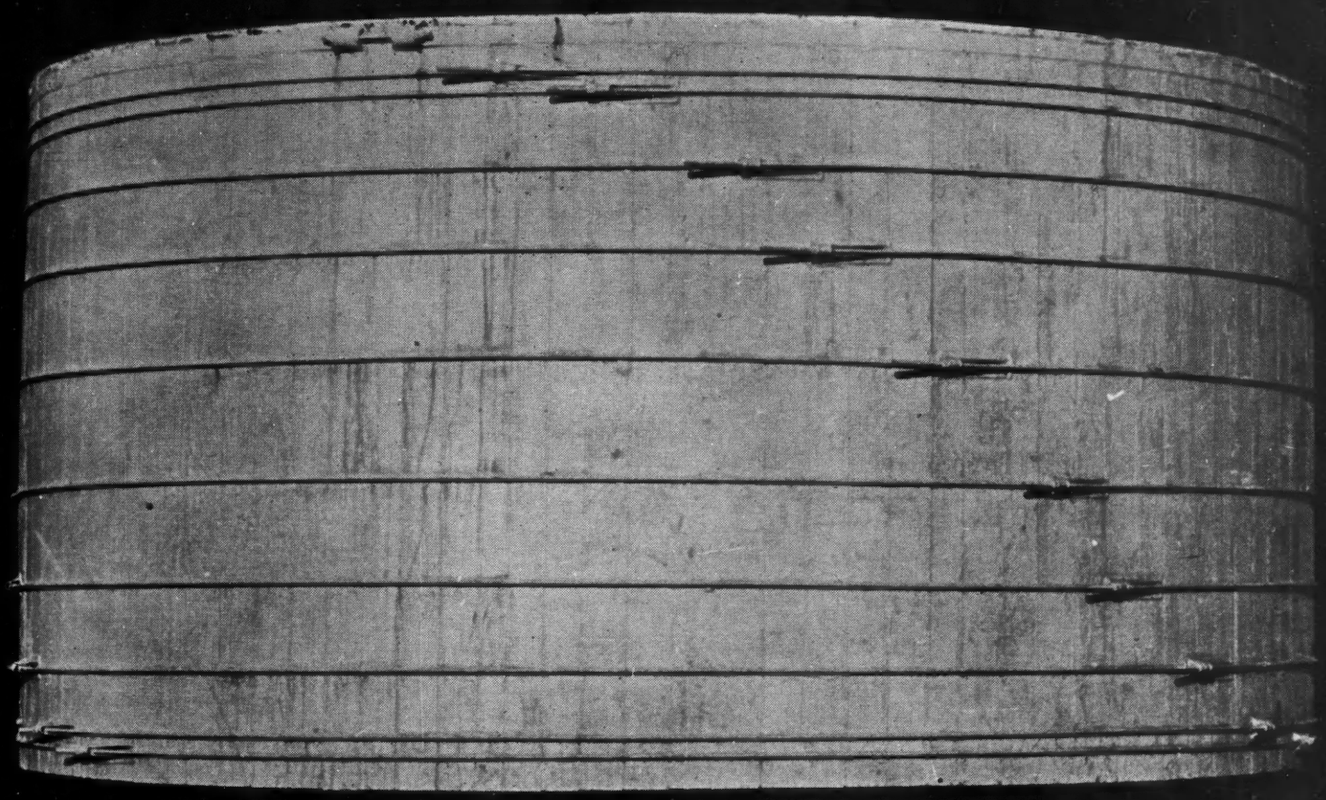

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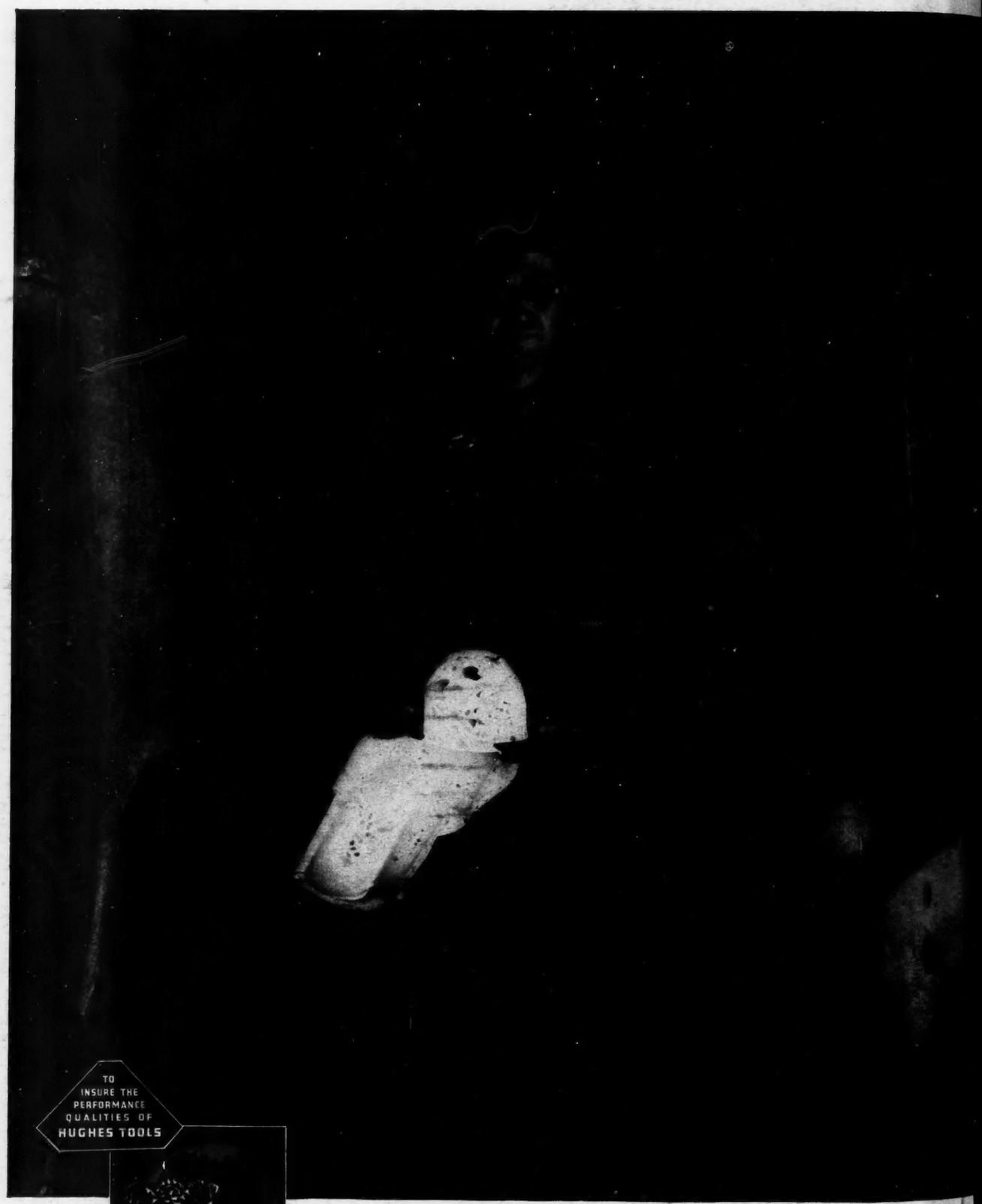

TO INSURE THE PERFORMANCE QUALITIES OF HUGHES TOOLS

Forging Hughes Tri-Cone Rock Bit Head

HUGHES TOOL COMPANY—HOUSTON, TEXAS, U. S. A.

Squeaks from the Bull Wheel

Just the Man

The tightrope walker, who had been at liberty for months, received a sudden call from his agent and he rushed down town to get the big news.

"I have something very special for you," informed the agent. "Did you ever see men walking up and down in front of a place with signs on their backs, picketing the spot?"

The tightrope walker wrinkled his brow.

"Sure I have," he said. "But what has that got to do with me?"

"Just this," stated the agent. "The fellow that the union wants you to picket has his shop on the third floor."

The Saving

Scots Barber (engaging assistant)—I pay lower wages in summer because the work's easier.

Applicant—But people get their hair cut just the same.

Barber—Ay, but ye dinna hae to help them on wi' their overcoats.

Modern Elizabethan

An English dramatist was asked to check and correct some dialogue in a Hollywood film dealing with Queen Elizabeth and Mary Queen of Scots. He pointed out that to make Queen Elizabeth say, "Well, Mary, I guess I've got one up on you," was hardly the language of the period.

The producer altered it and proudly displayed the amended version, with the comment: "It's a hundred percent Elizabethan now."

It read: "Well, Mary, I guess I've got one up on you, forsooth."

The Last Resort

In his announcement one Sunday morning the minister regretted that money was not coming in quickly enough—but he was no pessimist.

"We have tried," he said, "to raise the necessary money in the usual manner. We have tried honestly. Now we are going to see what a bazaar can do."

Safe

"I need five bucks and I don't know where to get it."

"I'm glad of that. I was afraid you thought you could get it from me."

Ho, Hum

He was relating one of his long-winded stories that everybody knew by heart. He was describing a trip to the Grand Canyon.

"The soft curtain of night was just falling," he orated. "There I stood, drinking in the scene, with the giant abyss yawning before me."

One of the listeners interrupted at this point. "I say, old chap, was that abyss yawning before you got there?"

All Depends

Stranger—I hear you have a fine cow now. What will you take for her?

Farmer (cautiously)—Wait a minute! Are you the new tax assessor or has my cow been killed on the railroad?

Forgetful

The druggist was instructing his absent-minded delivery boy to take some medicine to a Mr. Crummack.

"Now remember his name is Crummack. It rhymes with stomach," was the druggist's final warning.

About an hour later the boy returned, saying there was no Mr. Kelly anywhere around that street number.

Casting

Leading Man: "I can't play Hamlet tonight with a growth like this. You must give me the price of a shave."

Manager: "Fifteen cents? Can't be done. We'll do Macbeth instead."

Not Needed

"Better stick up a bit of a scarecrow to frighten the birds off that seed."

"Oh there's no need—I'm always in the garden myself."

Proof

A lady residing in a suburb became interested in a gang of workmen who were making some street repairs in front of her house. She halted to watch the operations.

"Which one is the foreman?" she asked.

"I am," stated a broad-shouldered Irishman with a proud smile.

"Really, are you?"

"Am I?" he asked. "I'll prove it to ye, ma'am." He glanced about, singling out the nearest workman. "Dugan," he barked, "y're fired!"

The Professor Again

William you haven't kissed me for three whole days.

You don't say! Then whom have I been kissing?

Once Enough

A proud parent called up the paper and reported the birth of twins. The girl at the news desk didn't quite catch the message over the phone.

"Will you repeat that?" she asked.

"Not if I can help it," was the reply.

Friend?

"Old friend, I pity you!"

"Why?"

"I have bought my wife a new car and she has gone to show it to your wife!"

The teacher had asked her class to write a short composition on the subject, "Water."

One scholar seemed to be having difficulty, but finally he turned in his paper, and here is what he wrote:

"Water is a light-colored, wet liquid, which turns dark when you wash in it."

WELDOLETS AND THREADOLETS

THE MODERN METHOD OF MAKING WELDED BRANCH CONNECTIONS!

Weids to main pipe and junction completed by either welding branch pipe to Weldolet or screwing pipe in Threadolet. Easy and economical to install. No templates or complicated cutting of main pipe required. Provides increased area for unrestricted flow and stronger leak-proof joints.

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